Maison rustique, or, the countrey farme / compyled in the French tongue by Charles Steuens, and Iohn Liebault ... and translated into English by Richard Surflet ... Now newly reuiewed, corrected, and augmented, with diuers large additions, out of the works of Serres his Agriculture, Vinet his Maison champestre, French, Albyterio [i.e. the 'Libro de albeyteria' of F. de la Reyna] in Spanish, Grilli [i.e. Gallo?] in Italian, and other authors. And the husbandry of France, Italie, and Spaine reconciled and made to agree with ours here in England: by Geruase Markham.

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Maison Rustique,

Or,

THE COVNTREY FARME.

Compyled in the French Tongue by CHARLES STEVENS, and IOHN LIEBAVLT, Doctors of Physicke.

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

Now newly Reuiewed, Corrected, and Augmented, with diuers large Additions, out of the

Works of { SERRES his Agriculture, VINET his *Maison Champestre,* } French. ALBYTERIO in Spanish, GRILLI in Italian; and other Authors.

And the Husbandrie of France, Italie, and Spaine, reconciled *and made to agree with ours here in England:*

By GERVASE MARKHAM.

The whole Contents are in the Page following.

LONDON,
Printed by *Adam Islip* for *John Bill.*
1616.

w: Raby:

307055

The Contents.

THere is contained 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 Sunne 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 Kitchin, and Physicke vse, as also in Quarters; with manie faire and cunning portraitures, to make compartments of diuers fashions in euerie quarter: with a large description of the heatbe *Nicotiana*, or *Petum*; as also of the root *Mechoacan*: to plant, graft, and order Orange-trees, Citron-trees, and such other strange Trees: to order Bees: to make Conserues: to preserue Fruits, Flowers, Rootes, and Rindes: to make Honey and Wax: to plant and graft all sorts of Fruit-trees: to make Cyder, Perrie, drinke of Ceruises, and Oyles: to distill Waters and Oyles, or Quintessences, of whatsoeuer the Husbandmans store and encrease; with manie patternes of Limbeckes for the distilling of them: to feed and preserue Silkewormes: to make and maintaine Medow-grounds: Fish-ponds of running and standing waters: to take Fishes: to measure and tyll 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 Vnder-growth: to make a Warren: to breed Herons: and to imparke wild Beasts. As also a large discourse of hunting the Hart, wild Bore, Hare, Foxe, Gray, Conie, and such like: with the ordering of Hawkes, and all sorts of Birds.

And lastly, in the end thereof, is briefely shewed the nature, manner of taking, and feeding, of the Nightingale, Linnet, Goldfinch, Siskin, Larke, and other such singing and melodious birds.

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TO THE MOST NOBLE, AND MOST WORTHIE LORD ROBERT, Lord *Willoughbie*, Baron of Willoughbie and Eresbie.

HOw euer the greatnesse of your place, or the necessitie of the times, may challenge your vertue (most Noble Lord) to bee wholy taken vp, in the contemplation of high, and serious affaires, as ambitious or couetous to enioy a full and absolute man, and making euery thing that is not equall with your worth, too much too inferiour for your eye; yet this excellent glorie of Nobilitie, well tempered Curtesie (in which you are flowing rich) persuads me that the arguments handled in this Booke, shall not appeare so triuiall in your Iudgement, but that as to the tale of an honest Husbandman, you will bend your Noble eare. And though not for the bettering of your owne knowledge, yet for the benefit which may spring vnto your neighbours, grant it your most Noble patronage and defence, from the stormes and frosts of Enuie and Detraction: It first belonged to your most Noble and Heroicall Father, as the gift of a

learned

learned and well experienced Gentleman, who in the tranſlation, tooke a long and well-meriting labour; it muſt needs then, now be yours, both by order and inheritance. And though when it came to kiſſe his hand, it was all French, except the language, ſo that many wanted skill to make vſe, and ſome were fearefull how to vſe a knowledge ſo differing from their practiſe: yet now it is put into other garments, and how homely ſoeuer the ſtuffe be; yet it is cut with that art and iudgement, that without doubt, it will both endure the wearing, and become any Husbandman of this Kingdome; or the other, who were firſt breeders of the ſame: to whoſe particular profit I leaue it, and my ſelfe euer to bee dispoſed as your

Lordſhips ſeruant,

G. M.

TO THE RIGHT HONORABLE, SIR PEREGRINE BARTIE, Knight, Lord *Willoughbie*, Baron of Willoughbie and Eresbie, Lord Gouernor of her Maiesties Towne *of Barwicke, and Lord Warden of the East Marches.*

AS *Darius* in his deepe affecting desire, made choice 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 speciall choce 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, countrie and domesticall discourse (such as I am here to offer vnto your Honour) being commonly esteemed but as a tale of a turfe, or matter for a mattocke. And indeed I could haue wished that the Heauens had stoupt as low to haue reuealed vnto you some of her sacred mysteries: as the earth hath aduanced it selfe herein, and opened her mouth to shew vnto you her cabinet of rich prouision, and casket of pretious iewels. Or else, that according to your place and calling, some *Cæsar* had affoorded you some learned Commentarie of Martiall Stratagems: or some *Lycurgus*, such treatise of Policie, as wherein you might haue had pointed out and delineated, as with *Polycletus* his golden rule, the exquisit rules of vpright iustice and lawes of Common-weales 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 that varietie and store of rari-

Plutarch. in Reg. Apoh.

Seruius in 2. Aeneid.

ties

ties it moſt plainely affoordeth: and I doubt not, but that you ſhall find it as pleaſant to your Honour, as *Virgill* knew his to be auaileable to Husbandmen. And that in reſpect of the ſubiect or matter, which (although others following their [illegible], 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 hominum ſonat, O Dea certe!*) ſay; I do not take this earth to be worthie to bee 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 bodie, 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 her figure, wee ſhall find it to be exactly ſphæricall and round. If in her 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 ſixe 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 to the whole indifferently and alike. For ſo fruitfull is this great mother of the world, as that not only in her wombe and inward bowels, ſhe conceiueth, perfecteth, and bringeth forth moſt pretious, ſeruiceable and beautifull babes: but in euerie other part, euen in her moſt ſuperficiall and outward cruſt. For what is there which gold, ſiluer, minerals, and pretious ſtones, may not bee matcht withall? How durable, faire, and ſeruiceable are they? And what pleaſure, profit, or reliefe againſt hard and vnſupportable neceſſitie, is like to that of ſo manifold ſorts of corne, trees, herbes, flowers, ſeedes, licours, gummes, beaſts, birds and wormes? Yea, what ſo excellent a creature as man and woman, the very quinteſſence and *Summum arcanum* of all the extractions and preparations that euer were or ſhall bee 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 minds of the common people (namely, the firie

Ouid. libr. 1. Metamorph.

Perrh. in Chirug. l. 24. c. 3.

Daneus in Phyſic. Tract. 5. c. 27.

Scribon. Phyſ. in cap. de Meteor.

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 ſtars: and thoſe other not firie, and therefore not ſo fearefull, as winds, whirlewinds, 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 endeauour of nature. Neither ſhall you find, that it can want any one of theſe pefections, if you doe but weigh how that it was made to be the mother, and nurſe of euerie liuing thing, and therefore to containe whatſoeuer neceſſarie thing that might bee 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 maintained 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 bee, that now is not, or continue, which alreadie is. And certainely we cannot deeme, but that it held this diuine reputation amongſt thoſe profound ſearchers out of natures ſecrets, & liuely ſhadowers and ſetters forth 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 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 Vice-roy: And therefore could not find 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 bee wiſhed for; as alſo by acknowledging the ſeuerall ſorts of inferiour gods, in ſuch a manner, as was to make them commaunders of ſuch pettie dominions, and bounden perticulars, as manifeſtly appeare vnto all, to bee the members of his vniuerſall iuriſdiction. For ſo they haue thought good to tie *Eolus* to his Winds, 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 hold in their poſſeſſion; ſo is

 their

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 blind, 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, sorrow 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 counterfeit of beautie, 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 doe containe, euerie 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 absolutely 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 gaiest 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 young and old fruit of her wombe: so if you please to call to mind such names, as the Gretians in their wisedome haue giuen thereunto, which are γαῖα, γαίη, or γῆ, of the verbe γαίω to be glorious, or to excel; 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 cannot 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 manner. 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 bee vouchsafed to haue conferd, all due and worthie dignitie and grace, vpon such as take paines, like deuoted fauorites, and feruent true louers, to make

Hesiod. lib 1, ἀθηλίης καὶ Ἡμερ.

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

her

her admired and honoured of all. Especially the same falling out not vpon any light and want on fantasies, that young and youthfull yeares may breed; (her last and worst age, hauing alreadie very deepely seised vpon her:) but rather of intire affection (if not compulsiue dutie) pricking them forward (so much as lieth in them) to pluck off her stiffe, hard, and drie-growne slough, that so she might receiue as it were a second birth, to the doubling of the thred of her liuely and lustie daies. 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 painefull toyle: and the other who endure hard stormes, till led by learnings load-stone, they haue also discouered the same by skilful precept. And the rather, seeing that as wisdome it selfe: (calling the first עבר אדמה and ארמה אחב that is, louers and tillers of the earth) the practise of the Worthies of all ages & nations, whether you call to mind the Romans amongst the Gentiles; or the Kings and kingly race amongst the Iewes: and thirdly, the testimonies of profane 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 workes which skill hath framed, cannot but approue and praise the workeman: and consiquently, the happie hand that was imployed in penning and pointing out the summe of all that art and cunning. Againe, if such as faithfully set downe the acts, the speeches, and seuerall occurrences of persons and times, for performing so woonderful 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 contrarie, that which shall be last, and neuer was before, to bee all beset with the hoarie haires of the very first and eldest antiquities, be truely worthie of immortall honour: then how much more should they, who from painfull plodding precept, haue reuealed the knowledge of bringing forth, as also of recording whatsoeuer such famous deedes or sayings? Wherefore accept, and take in good part, R. Honourable, (as one who can neuer let slip any the least kindnesse that hath bin offered to a mother) this laboured worke, the magazin, and storehouse of all such knowledge, as may make for the honour, digni-

2.Chro.26.10.

Genes.4.2.

2 Sam.9.14.

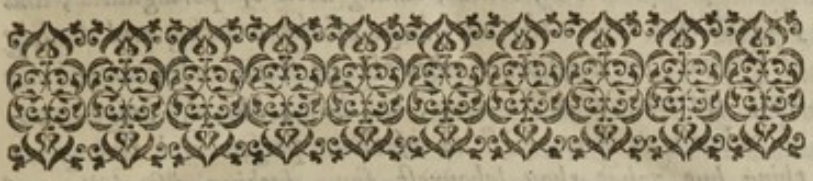
Olymp. Nemesian. in 2. Eclog. Ouid lib.2. de Ponto.

 tie,

tie, maintenance, and beautie of that common mother; from whoſe wombe we (euen all of vs) are not onely deſcended, but by whom we are ſtill ſuſtained; and into whoſe boſome, death ſhal no ſooner caſt vs, than we ſhalbe welcome, louingly receiued, throughly and indiſtinctly reunited, and ſafely reſerued vntill the great day of ſummons, wherupon ſhe will as readily render and repay, whatſoeuer hath beene thus committed to her cuſtodie, and charge. And that 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 dignitie of fellow ſuffering with Chriſt, and that in a deepe degree;) continued your life, and drawne out your daies in his feare, and the loue of his truth 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 ſtil 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 holines, prudencie, and fortitude, to expreſſe and repreſent, you vnto their liues ends.

Your Honours in all humble dutifulneſſe,

RICHRAD SVRFLET.



Surflet, to the courteous Reader.

WEe 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 manner of preparing many, both pleasant and wholesome dishes, are had in high account and estimation: And that that Musician 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 farre greater art, should reape of thee the like affection, and entire deuotion of a friendly heart. The learned man seemeth vnto mee, to haue made this long digression, and turning aside, out of his direct way, namely, the affaires of his particular calling, vpon some deepe touch, wherewith hee had felt himselfe mooued, to labour the relieuing of the miserable estate of mankinde, which (either through ignorance, or sinister employment of the gifts of his minde and nature, or other goods) hee found euerie where, either pinched with penurie, yea, worne out with want, and (as it were) fast shut vp in prison, farre from all sufficiencie, or else loosely and lewdly running riot: not onely ceasing from the duties which hee should and could doe, but also following such practises as lawfully hee neither could, nor should doe. For canst thou possibly auoid him, whosoeuer thou art? If thou boe one of anie great*

place and possessions, hee teacheth thee to charge thy selfe as thy reuenues will liberally reach, taking heed of pordigalitie; 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 bee done, and how, but also iudge thereof when it is done. If an inferiour person and hauing nothing but what thou laboureſt for, lacking also skill, and so suffering thy field to grow barren: hee teacheth thee all good meanes for the making of it fruitfull. If for lacke of will, pouertie come vpon thee as an armed man, know that there is neuer a precept of paynefull toyle and laborious husbandrie throughout 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 malitious vexing and troubling of thy neighbour in the Law, or to the corrupting of the honest and chast liues of Maides, or any of thy neighbours Wiues, hee calleth thee from such courses vnto the labours of thy ground: for scarce to take thy lawfull recreation at lawfull delights (such as are Hawking and Hunting) will hee affoord thee any leasure: If a Farmer, hee teacheth thee kindneſe by deuising something to gratifie thy Lord withall; and gentleneſſe in louingly intreating thy seruants. If thy neighbour enioy any goodly commoditie of Grasse, Corne, or other dead thing, or any other liuing thing whatsoeuer that is excellent, because hee would not haue thee to looke vpon the same with a repining, greedie, and couetous eye; hee calleth thee to the prouiding of such of thine, by teaching thee how to doe it. If thou bee a seruant, hee willeth thee to bee both painefull and pittifull; that so all thy busineſſe may bee well done, and in due time: and the beastes wherewith thou art charged, may bee tendred of thee in all mildneſe. And finally, that all vnhoneſt and disgracefull waies may bee farre from thee, hee hath taken the paines to instruct thee in so many things, as that if thou wilt applie thy selfe thereunto, and to doe them well: thou shalt not find the leasure to lend a thought to the euill that might allure thee. And that he might not bee mistaken and thought to forget that woman was made

for

for a helper, hee hath called her to her taske, and that neither little, nor consisting of a few or base things, hauing committed vnto her (besides many other matters) the cure and charge of families health. But leaning to speake any more of her charge in particular, I could wish all such of that sexe as are religious, to looke before they leape, and to bee wise according to sobrietie and grauitie: Sobrietie, 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 plainely proue, a light, a loose, and very 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 great ioy and felicitie; and that through their sinne it was cursed, and they were cast out of the most pleasant, commodious, and beneficiall part thereof: I could wish them iointly to record such their former felicitie, and the losse thereof, to the end that they may applie their hearts vnto wisedome, and learne, that although they doe continually labour, yet if they wallow in sinnes, they doe but throw downe twice as much as they build vp, destroy and mar more than they make, driue farre away the creatures of meate and maintenance, which they labour so greedily to scrape and pull vnto them, and euen bereaue the earth (if it were possible) of all manner of fruits and increase, that so it might not any more either feede or cloth them: For knowledge, skill, toyle, paine, rising early, lying downe late, with euery other helpe, doth loose his vertue and come short of his end, if delight of sinne bee ioyned as a companion therewithall; it being the heauie load and burthen vnder which all creatures doe grone; the burning ague that drieth all sappe and moisture; and that cursed seede which causeth them as a vaporous brood not onely 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

Thus (gentle Reader) hauing commended vnto thee the Authors due, and drift, and mine owne aduice, how thou maiest most certainely attaine the same; I leaue thee, hoping, that as they are things that match and sute so together, as that one of them cannot well goe without the other; so thou wilt apprehend and lay hold of them all, as that thou wilt neuer suffer any of them to be lost, or lie idle.

Farewell.

A Table, to know the best time, when to *sowe diuers sorts of Seedes.*

- Hee that will sowe seeds, must know, that
  - Some may be sowne at all times of the moneth & Moon, as are these:
    - Asparagus.
    - Coleworts of all sorts.
    - Spinage.
    - Lettuce.
    - Parsneps.
    - Radish.
  - Others would bee sowne in a certaine moneth and Moone: as there must bee sowne in the moneth of Februarie, the Moone being
    - New,
      - Spike.
      - Garlicke.
      - Borage.
      - Bugloſſe.
      - Cheruile.
      - Coriander.
      - Gourds.
      - Water-Cresses.
      - Marierome.
      - Palma Christi.
      - Flower Gentle.
      - White Poppie.
      - Purslane.
      - Radish.
      - Rocket.
      - Rosemarie.
      - Sorrell.
      - Double-marigolds.
      - Tyme.
    - Full,
      - Annise musked.
      - Violets.
      - Blites.
      - Skirworts.
      - White Succorie.
      - Fennell.
      - Parsley.
    - Old,
      - Holy Thistle.
      - Cole Cabbage.
      - White Cole.
      - Greene Cole.
      - Cucumbers.
      - Harts-horne.
      - Sampier.
      - Dyers graine.
      - Spinage.
      - Cabbage-Lettuce.
      - Melons.
      - Onions.
      - Parsneps.
      - Larks heele.
      - Burnet.
      - Leeks.

You

- You must sowe in March, the Moone being
  - New,
    - Garlicke.
    - Borage.
    - Bugloſſe.
    - Cheruile.
    - Coriander.
    - Gourds.
    - Marierome.
    - White Poppie.
    - Purſlane.
    - Radiſh.
    - Sorrell.
    - Double Marigolds.
    - Tyme.
    - Violets.
  - Full,
    - Musked Anniſe.
    - Blites.
    - Skirwoorts.
    - Succorie.
    - Fennell.
    - Apples of loue.
    - Maruellous Apples.
  - Old,
    - Artichokes.
    - Baſill.
    - Thiſtles.
    - Bleſſed Thiſtle.
    - Cole Cabbage.
    - White Cole.
    - Greene Cole.
    - Citrons.
    - Cucumbers.
    - Harts-horne.
    - Sampier.
    - Dyers graine.
    - Spinage.
    - Gilliflowers.
    - Hyſſope.
    - Cabbage-Lettuce.
    - Melons.
    - Muguets.
    - Onions.
    - Flower Gentile.
    - Burnet.
    - Leekes.
    - Sauorie.
- You muſt ſowe in Aprill, the Moone being
  - New,
    - Marierome.
    - Flower gentle.
    - Thyme.
    - Violets.
  - Full,
    - Apples of loue.
    - Maruellous Apples.
  - Old,
    - Artichokes.
    - Thiſtles.
    - Cabbage Cole.
    - Citrons.
    - Harts-horne.
    - Sampire.
    - Gilliflowers.
    - Muguets.
    - Parſneps.
- In May, in the old of the Moone
  - Bleſſed thiſtle.
- In Iune, the Moone being
  - New,
    - Gourds.
    - Radiſhes.
  - Old,
    - Cucumbers.
    - Melons.
    - Parſneps.
- In Iuly, the Moone being
  - Full,
    - White Succorie.
  - Old,
    - Cabbage-Lettuce.
- In Auguſt, the Moone being
  - Full,
    - White Succorie.

Hearbes

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

Vnderstand, and know, that the choice and age of seedes is double: for after you haue chosen them ripe, full, heauie, corpulent, grosse, of a good colour, and that they fall not into powder eyther through rottennesse, or bruisednesse,
- Some doe grow better of new seedes, as Leekes and Cucumbers.
- Othersome doe grow better of old seedes, as
  - Coriander.
  - Parsley.
  - Sauorie.
  - Beets.
  - Origanum.
  - Cresses.
  - Spinach.
  - Poppie.

Know further, that you must preserue from the cold,
- Lettuces,
- Artichokes,
- Basill,
- Thistles,
- Cabage Cole,
- Dyers graine,
- Melons.

} fifteene dayes after they put foorth of the earth.

Know, that seedes doe thriue and prosper a great deale better, when they are sowne vpon such daies as are but warme, and not verie hot, or cold, than in hot, cold, or drie daies.

Note, that seedes 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 and dried in the Sun, or shadow.
  - Other-some, as
    - Onions,
    - Chibbols,
    - Leekes,

    } in their huskes.

Note, that it doth well to
- Plant in the last
- Gather grifts in the last but one
- Grift two daies after the change

} of the Moone.

Note,

Note, that they which are growne vp to the knowledge of the Planets and Signes, may exactly obserue the aspects of the Moone vnto the rest of the Planets, & how long it abideth in anie of them, for shee

- aspecting
  - ☽ by a △ or ✶, in the signe ♉ ♋ ♍ ♎ ♐ ♓ — it is good to
    - Plant Vines.
    - Sow all things generally.
    - Sow the fields generally.
    - Sow Gardens.
    - Sow 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	2	♐
7	15	♑

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

THE FIRST BOOKE OF THE COVNTRIE FARME.

CHAP. I.

What manner of Husbandrie is entreated 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 we see the manner of the labouring of the earth for the nourishment and sustenance of the same, to differ greatly, according to the Countries, Soyle, Grounds, and Situation of the Places wherein they are seated: yea, there is not so much as their language, apparrell, or household-stuffe and working tooles, but they change after the fashions of Countries, which notwithstanding doe not hinder, but that in euerie thing wee 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 varietie 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 varietie 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 manners of the Countrey, without affecting, either by the reading of old Writers, or their owne ouer-reaching curiositie (the ruine and 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 vtterly to spill, spoyle, and marre the same. And therefore I would not haue you to maruell, if the Frame and Toile vsed about our French Countrey-Farme be not altogether like to that of former and auncient daies: for it is my purpose (following the Prouerbe, which sayth, That we must learne the manners of our auncient predecessours, and practise according to the present Age) to lay out vnto you the waies, so to dwell vpon, order, and maintaine a Farme, Meese, or Inheritance in the Fields (name it as you please) as

Ouer-much curiositie the ruine of good wits.

What manner of Husbandrie is entreated of in that which followeth.

that

The name of the Country house is a Farme, Meese, or field Inheritance.

that it may keepe and maintaine with the profit and encreaſe thereof, a painefull and skilfull Husbandman, and all his Familie: whereupon it commeth to paſſe, that the countrey inhabitants doe 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 than the earth, if it be well husbanded and reaſonably maintained.

The Translator.

Now for as much as (with good reaſon) my countreymen of England may obiect againſt this Worke, that albeit it may ſort well with any ſoyle that is in any degree (how much collaterall ſoeuer) allyed to this temper, clyme, & mixture of the French: yet to vs that are ſo much remote in nature and qualitie, and whoſe Earth giueth vnto vs, for our moſt generall profit, things and fruits, either little, or very ſtranger-wiſe, acquainted with them; and in as much as there may be found that difference in our labours, which may equall the difference of our taſts, they being as farre from our Barley as wee from their Vine, and wee as farre from their Fruits as they from our Woolls; I will, after the faithfull tranſlation of their noble experiences, adde the difference of our cuſtomes, and to their labors adde the experience and knowledge of our beſt Husbandmen, hoping thereby to giue a publike content to our Nation, who ſeeing the true difference of both Kingdomes, may, out of an eaſie iudgement, both compare and collect that which ſhall be fitteſt for his vſe and commoditie.

The Engliſh practiſe added to the French.

Chap. II.

A brieſe 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 champion place ſeated in ſuch a coaſt or corner as you may find, not as you could chuſe, and there wee will prepare, without extraordinarie coſts or charges, a Houſe with all ſuch appurtenances (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 Commonwealth of the Romans: And in the ſame place we will entreat of the ſtate and dutie 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 wee will place the houſehold 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 houſehold ſtore with Veriuice, and other neceſſarie hearbes for the houſe: and we ſhall not altogether neglect or forget to prouide and plant in the ſame place hearbes fit for medicine. And yet furthermore in this garden alſo you ſhall plant things to make your profit vpon, as Saffron, Teazill, Woad, red Madder, Hempe, and Flaxe, if it ſeeme not better to reſerue this part of Husbandrie for fields that are full of Fennes or wateriſh Places. In the other part wee ſhall make a garden for flowers and ſweet 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 ſorts of Pulſe, as alſo Melons, Citrons, Cucumbers, Artichokes, and ſuch like: in which place wee ſhall entreat of Bees.

The Summe of the third Booke.

Next to our gardens wee muſt dreſſe ſome well-defenced piece of ground or greene plot for fruits, and there place our nurcerie for kernels and ſeeds, and there plant ſuch ſtocks as whereon we intend to graft. After, or next hereto, our ſquare of old growne trees, and ſuch as haue beene tranſplanted, taken vp, and remoued: and together with theſe things we will write of Silkewormes, and preſcribe the waies to diſtill Waters and Oyles, as alſo to make Cyders.

Next

Next in order to our foresaid Greene plot, 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 will 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 Corne-grounds, and teach how to measure them, and describe their fashion and manner of Tilling: in which place wee 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 Butt 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: Wee will speake of Vintage, and the making of common and medicinable Wines. And thereto wee will adde the diuers sorts of Wines which grow in our Countrey of France. *The Summe of the sixt 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 wee 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 wild Beasts, of the hunting of them, but that in a few words (for there is no need that a good Householder should trouble his braine with much hunting) and of the breeding of Herons. Finally, we will briefely describe the order and manner of taking of Birds. So that after all these things, there shall not much remaine further to be added hereunto, either concerning the pleasure or profit of a Countrey 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.*

Chap. III.

What things are requisite before we goe in hand with building of this Countrey Farme.

AS concerning the proprietie of Inheritance (whereof manie Authors, both Greeke and Latine, haue entreated so exactly and curiously) I doe not at all intend to incomber my selfe therewith, supposing, that this Countrey 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 Householder, before he build or trim vp his House, is to bethinke himselfe how he may make the state entire and absolutely vnto himselfe, and so to haue nothing to doe with such as are vnder age, Creditors, Rentors, or others in superiour place, which may interrupt and commaund 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 than of foolish sellers. Let there be past a yeare and a day before he make any exchange, raising and mouing of new debts, for the cleering of his Inheritance, and let him

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

Purchase by statute, the surest of al others.

That there be moe foolish buyers than sellers.

him not lay out to the value of a penny, before he haue fully ended all things, measured and bounded his grounds from his neighbors, and assured his peace euen against the most wayward 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 doe 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 than defendant: I meane in respect of duties to be performed to the chiefe Lord, and other impositions by the Prince; in discharging whereof, euen to the vttermost Penny, Capon, or whatsoeuer else it be, he ought to be no lesse carefull and diligent, than 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 annoyance to the lodgings vnderneath.

That Land leadeth strife in hand.

Chap. IIII.

The seating and situating of the Countrie Farme, with other his appurtenances.

ALthough euerie man in all things enquireth after his owne commoditie, and straineth himselfe to come as neere to perfection and excellencie as possible he can; notwithstanding, the well-instructed and modest Householder contenteth himselfe with that, whatsoeuer it be, that commeth of the hand and grace of God, and accounteth for great bountifulnesse and liberalitie such Pittance, Grounds, and Seat as falleth vnto him, assuring himselfe, that choice and perpetuall fruition belong no more to him than 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 & those that belong vnto him, and the erecting and setting vp of an House. For he should not learne to lust after, or desire, anie more (if the Prouerbe be true) than a Wheele-barrow for the first hundred yeares, and a Banner for the second hundred yeares.

Labour is requisit in a Householder.

That is to say, that euerything hauing attained his height, doth in the end decrease.

If I should here goe 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 void of all reason. It is verie true, that if anie such place could be found, 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 than with the situation of their owne Countries: some of them sometimes being too hot, too cold, verie subiect to corruption and putrifaction; othersome lesse profitable for the bringing forth; 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 commodious as that great Husbandman *Cato* doth desire it; yet it must be prouided and foreseene aboue all other things, that it haue the benefit of a good Aire: for suppose, that the grounds were verie fruitfull, and endued with all the best properties and qualities that a man could possibly wish to be in a champian ground; yet notwithstanding, if the Aire be pestilentiall and infectious, or not sound, it should argue nothing but great foolishnesse in a man there to imploy his cost and paines. For where a man is in continuall danger of sicknesse, or of death, not onely 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 than any profit. Wherefore (if it be possible) you must make

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.

make choice of a place farre from marishes, farre from the Sea shore, and where as neither the Southerne nor Northerne winds doe ordinarily blow, and which lyeth not altogether 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 auoid the outrages of Tyrannie, and inrodes of Souldiors: let it in like manner be farre from Riuers and Brookes, which are subiect to ouerflow, and that in respect of the vnauoidable charges for the repayring of such ruines and spoyle as such ouerflowings doe 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 end 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 sold for the best aduancement 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 be wanting vnto it, were (as hath beene said) an vnreasonable thing: as it is also to expect or looke for grounds and fields 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 skill, 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 growne good Wines and Fruits of long continuance: in cold places, great store of sweet waters, and sometimes sea-water, which greatly encreaseth their profit: in others, for the most part, when the Earth is barren in the vpper part, it containeth some good things vnderneath, as it falleth in Stone-pits, Mynes, and such other things, which make the change for the better. So then wee 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 crone that is hard to please, might require and looke for, then wee shall straine our selues to mend it by the meanes set downe hereafter.

Neere vnto a good neighbor.

Farre from places of garrison.

Farre from Riuers and Brooks

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 something to be supplyed, as want of Water in high and ascending places; such as are the Countries of Beaux and Campaigne, notwithstanding that their grounds there be strong, as it happeneth in rising and mountainous places: too great store of water in falling grounds and long valleyes, such as are to be found in some places of Sauoy, Daulphine, Auuergne, and Gascoigne, in which places there is more pasture than tillage: other quarters are giuen by nature to be sandie, as towards the Towne of Estamps, Saint Marturin de l'Archaut, in Solongne, and in the Countrey 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: otherfome are stonie, as towards Saint Lou de Serans, Tonnerre, Vezelay in Daulphine, and in the Pyrene Mountaines, where is to be found great store of excellent Marble: and some are rockie, which are most fit for the Countries abounding with Vines. Howsoeuer the case stand, the building cannot happen in so inconuenient and strange a place, but that a man may make choice to take the best quarter for the Sunne-shine, as that which is most for the health and wholesomenesse of the inhabitants, and apply it euerie 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 flat place, as Beaux or high France, doe 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 ground proue it selfe strong, you shall not need to manure and dung it so oft, neither yet to let it lye fallow more than euerie fourth yeare. If you cast Pits,

A high and flat Countrey.
Pooles.
Cesternes.

Pits called Arauques.

you must digge them of a conuenient widenesse and length, that is to say, foure-square; but somewhat more long than wide, after the fashion of the Pits *Arauques*, 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 low 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 emptie 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 Cesterne, or otherwise.

To make a Cesterne for to hold and keepe Raine water.

The Cesterne shall be set in such a place, as that it may receiue all that commeth from such spouts as are belonging to roofes or lower lofts 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 end that the water be not made muddie, or tast of the earth: and if there happen any clift or chinke, you must stop it with Cement made of cleane Haire, Tallow, vnquencht Lime, and yolkes 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, shall be such as that appointed for the Pits or Wells. Some cast into their Cesternes Eeles and other fresh water fish for to be fed and kept there, to the end that the water may become the lighter by reason of their mouing and stirring of it, and 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 greene hearbes 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.

The way to prepare ground for the bearing of wood.

Moreouer, for the discommoditie of Wood, you shall make leane the earth in certaine places neere vnto your lodging with grosse Sand, Fullers earth, and ashes from off the Earth: after that, you shall either sow or set there such Trees, as you shall thinke that may serue you; although indeed it were good to proue what kind of Trees would best prosper there, before you wholly sow or set it.

A Countrey 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 neere a neighbour vnto Riuers, would be a cause of procuring Rheumes, and the falling down of some Roomes: and yet it is not good to haue it too farre off, as well in respect of watering of the Cattell, as for the washing of Buckes, Skinnes, Line, and Hempe; 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 Fields 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 doe dwell in Summer in watrie 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 well beare: for Princes haue wherewith they may be at their change and varietie of lodgings, according to the changes and alterations of the seasons of the yeare, 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 Easterne Equinoctiall, and not lose the rising of the Sunne 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 Countrey, 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, and defence also for the same against the

Northerne

Northerne windes in the Winter time. But if you be in a hote countrey, you must set your said tuft of Trees on the South side, against such windes and heat of Sunne as come from thence, and boldly open your lights, especially in the said Barnes which lie on the North side.

Make good choice of the best parts 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 in the time of a Northerne wind. Such places are found in Countries full of Mountaines, which doe greatly desire the East; and yet notwithstanding would therewithall take part of the South, which is so needfull for them.

In this and such like places Wells are in greater request, and much more necessarie than in valleyes and plaine grounds, and that wee may find out the place where it is best to make them, wee must chuse the Easterne side, at the beginning of the descent, somewhat therewithall bending towards the North, but wee may not haue any 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 quantitie of three feet ouer and fiue in depth, and after returning in the morning at the Sunne-rise, you must make triall how it soundeth, being strucken with the end of a Holly staffe, armed at the said end with some round peece 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 fat Earth, Potters clay, or some other that is very hard, or like a Glasse halfe broken, or else like a very 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 verie drie, a little before the Sunne rise, you must lye 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 Clouds, 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 foure foot within the ground, and therein to put sponges or fleeces of Wooll verie drie and cleane, couering them with boughs of Trees, or leaues of Hearbes: then, after some time, to take them out of the Earth, and they being wet and moist, doe argue abundance 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 clouds and vapours rising from thence into the ayre, 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 thereupon, without hauing first made some triall: for vnder Crowfoot, Folefoot, Plantaine, Dogtooth, Cinquefoile, Milfoile, and three-leaued Grasse, Water is not farre to seeke, but it is naught worth, if one digge not verie deepe, as is to be seene at Bagnolet Belle-Ville vpon the Sand, and other places of Liury. Vnder Veruaine is oftentimes found good Water, and deepe, according to the nature of the ground: and withall, of the head doe spring from grounds apt to boyle, 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 Wells containing water of a good rellish, and such as will neuer drie vp, we must make choice of a sandie, 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 engendred of a watrie humour, doe grow: for although that such places doe yeeld great store of water, notwithstanding that water is naught worth, and will easily be dried vp. Wherefore as much as lyeth in you procure that your Wells be farre off from such ditches, as wherein they lay the dung of Stables, Cattell, or Swine-

wells that neuer drie.

coats,

Wells of good Water.

coats to rot, or any other place which may annoy in regard of the pissing of beasts, if they be not well digged and made verie deepe. True it is, that Wells will be a great deale the better, if they consist of a high rising water, and not such a one as lyeth deepe in the earth. For howsoeuer that such Wells be lesse hot in Winter, and in Summer lesse cold, yet notwithstanding it shall be infinitely better, because it hath more helpe of the Sunne and Aire, which are the two things which doe greatly amend and make better the water: and if necessitie force the water to lye so deepe and low, wee must seeke to helpe the inconuenience, by drawing but a little, and oft, for the iumbling and stirring of the water will rectifie it: and amongst other things, you must haue speciall care not to keepe it couered.

Fountaines.

To find out the heads of Fountaines.

Fountaines in like manner rising from such places of Mountaines, are had in request, as well for the profit of the water, which is a great deale better and more pleasant than that drawne out of Wells, as also for the beautifying of the Country Farme. And for to find their Head, or Spring, wee must vse the like meanes as wee haue layd downe for the finding of Wells, excepted that wee must make chiefe choice of such as breake forth vpon the North at the bottome of high and great Mountains, hauing hollow places, and compassed about with plaines, 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 vpon and desire the best and most excellent water, you must make choice of high places, and such as are not ouer-shadowed, the fall whereof doth enioy the Sunne-rising, for water out of such Fountaines is a great deale more light and pleasant in tast, and by how much it runneth the swifter and longer way in the Aire and Sunne 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 downe-right places of stones and craggednesse of the Rocks. We must also see that such Mountaines be full of Dogs-tooth, Plantaine, Fox-taile, wild Penny-ryall, transmarine Sage, which is called Adianthum, Milfoile, Chameleon, and generally, all other hearbes and plants, which grow without being planted, and are by nature greene, well branched, good and thicke, and well flowred.

The best time to find out Spring-heads.

The time most apt in all the yeare, and affoording greatest perseuerance for the finding out of the heads of Wells and Fountaines, are the moneths of August or September, for then it is easie to know the greatnesse of the head, when the earth, by the great heat of Summer, 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, Wood, or Pot-earth: the best are made of Aller tree, Firre tree, or Pine tree, out of which distilleth Perrosen, because that such Trees haue an oylie humour, and hot, which easily 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 foot, to goe the one of them into the other: The worst 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, because 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, and for that we see also diuers Countries doe drinke of such waters, without being troubled with bloudie fluxes: whatsoeuer it is, wee 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, oyle, and the filings of yron, because that all these things doe hinder corruptions and rottennesse which the water might cause.

If

If any Mountaine doe hinder the laying or bringing along of these Pipes, wee must make them way: 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 rayse pillars and other matter to support those water-passages.

But it is not sufficient to haue found out those Heads of Wells and Fountaines, but wee must further consider of the goodnesse and wholesomenesse 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 Household should haue care to procure good Water, in as much as Water must be the most of his seruants drinke, and that the Bread which he and his familie doe eat, is kneaded therewith, and the greatest part of his victuals boyled therein. The best and most wholesome Water of all others is Raine Water falling in Summer, when it thundereth and lightneth verie much; and yet notwithstanding, Raine Water causeth costiuenesse and obstructions, especially that which is kept in Cesternes newly made, and that by reason of their Mortar wherewith they are ouer-layd: It doth also corrupt very quickly (that onely excepted which falleth in May) and being so corrupted, it marreth the voice, bringing Hoarsenesse, and a little Cough. Next to this in goodnesse is the Fountaine Water, which falleth from the Mountaines, and runneth along amongst Stones and Rocks. Next to this in goodnesse 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 and Marish Grounds: and yet that which runneth not is worse than all the rest, and more apt to infect. The Water of Snow and Ice is the most vnwholesome of all, because it is the coldest and most earthie, as not hauing beene prepared by the heat and vertue of the Sunne. And as concerning the Water of Wells and Fountaines (seeing it is not found good alwaies and in all places) we shall know them to be good, if it haue neither tast, smell, nor any colour whatsoeuer, being notwithstanding verie cleere, and of the nature of the Ayre, taking quickly the colour of anie thing that one shall cast into it, being also cleane, warme in Winter, and cold in Summer, easie to make hot, and as soone becomming cold againe; in which, Peason, Beanes, and other such like things, doe boyle easily; and which being put for some space in a Brasen, Copper, or Siluer Vessell, well scoured, leaueth no discoloured parts or spots in the same, and which, when it hath beene boyled in a Cauldron, made verie faire and cleane, doth not make any setling or shew of filth in the bottome: if such as vse to drinke it, haue a cleere voice, a sound breast, and the die or colour of the face be neat and liuely: finally, that which together with the rest of the markes, is verie light, and by consequent as principall of all the rest shall that be iudged, which excelleth in the foresaid markes and qualities: and for to know which is the lightest, weigh as much with as much of euerie sort of Water, or else take two, three, or foure 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 euerie one wet a Cloth, distill the Clothes, or let the Water drop out of them, and then weigh them, for the Cloth which was moistened in the lightest Water, will then weigh lesse than the rest. It is true, that the lightnesse of Water is not so truely tryed by weight as by drinking, not causing at such time anie burthenous weight in the places about the short Ribbes, and passeth through the bodie speedily, as also in being quickly hot and quickly cold.

What Waters are best.

Drie Places, and Countries abounding with Mountaines, doe commonly bring forth Stones, which is easily 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 find vpon vntilled grounds the liuely shapes of Fruits and Corne gathered together and growne vnto the Stone, which is to bee seene neere to Mommirall in Brie, where Wood is growne vnto the Stone: besides that, the Hearth will

Place giuen to bring forth stone.

will make quicke and ſpeedie triall hereof. This will doe you ſeruice in the enclofing either of your Parke, or of your Vineyards, and other ſuch like commodities, beſides the profit you may make of it by the ſelling of Milſtones and Stones to build withall. But looke well to your ſelfe, and take good heed of Quarries, and caſting of Stone-pits, and of their deceits, which oftentimes rewards vs with our paines for our labour.

Deceitfull ſtone-pits.

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

And as for the Earth (taken and vnderſtood generally) it beareth all manner of Corne, Fruits, Hearbes, Timber-trees, Mettals, Stones, and other things, and this hath beene giuen vnto it euen ſince it was firſt made: and hereupon old Writers haue iuſtly giuen vnto it the due name of Mother. But although, in reſpect of the cold and 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 things of repugnant qualitie: and hence doe riſe the diuers ſorts of the ſame, and ſo diuers, as that euerie ground will not beare euerie thing, but one or two at the moſt. For this cauſe, to auoid both coſt and labour, ſee aboue all things, that you proue, either by your owne triall and experience, or elſe by ſuch enquirie as you can make of your neighbors, what kind of Fruits, what kind of Corne, and what ſorts of Trees, doe proſper beſt thereon. Some places in France, and the free Countrey of Beaux, beareth no other graine than Rye, which is contrarie to the nature of the ground new broken vp: another loueth nothing but Wheat: Solonge loueth March corne, and ſometime Meſling: Touraine, worthily called the Garden of France, is found moſt plentifull in Gardens and Fruit-trees, as that part called Brie or Braye (becauſe it is ſituate betwixt the Riuers of Marne and Seine) doth bring forth Fruits and Corne for ſuſtenance: and that quarter which lyeth betwixt Marne and the Riuer of Aube bringeth forth an infinite deale of Hay: Notwithſtanding, the diligence of the Farmer may by his induſtrie ouercome the weakneſſe of a ground, euen as well as all ſorts of wild Beaſts may be taméd by the paineſulneſſe of man.

That it is againſt the nature of the free Countrey of Beaux to beare any Rie.

Touraine the Garden of France.

Man by labour is able to tame euery thing.

Watrie and mariſh places.

In watrie and mariſh places it will ſtand vs vpon 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 eſpecially obſerue and marke the diuerſitie of the bottome and vndermoſt part 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 Summer, but of greateſt maintenance, preſeruation, and ſafetie, if you enuiron it round about with water, after the manner of an Iſlet, as it is practiſed in manie places of Flanders, who make the vſe thereof familiar among them, to reape thereby the benefit of Fiſh in his ſeaſon, the fleſh of wild Fowle, Trees as well for Fruit as for Fire and Building, beſides the helpes of their excellent paſture grounds: but indeed your owne health, as alſo the health of thoſe of your familie, is impaired hereby, eſpecially in Winter. Wherefore it will be better to build vpon high ground, as the auncient Romans did, and to leaue the waters below, for the comforting of your ſight, if ſo be you haue not the meanes of clofing in all the ſame round about, for your breed of young Colts and other Cattell, all which will like verie well vpon ſuch grounds, excepte it be your Cattell ſeruing to furniſh you with Wooll.

To build on the tops of high ground.

Wild grounds, Deſarts, and Bull-ruſhes.

If your Farme doe, for the moſt part, conſiſt of wild Grounds and Deſarts, you ſhall make them arable by labour and paines, and recouer them, deluing them diligently, and raking them often: for the Bull-ruſh, Brakes, and ſuch other hearbes will ſoone be killed, when the earth is often turned. But and if you deſire with more haſt and certainetie to deſtroy them, you ſhall burne the ground

the

the two first yeares, and sow therein Lupines or Beanes, to the end that together, with the curing of the disease of your fields, you may reape some profit and commoditie.

Stonie grounds are mended by taking away the stones, and if the quantitie be great, it will be best to cast them together in manner of some small hillock in certaine places of the ground, and so by that meanes the rest will be cleansed and freed: or rather, when the daies of handie-workes shall be got good cheape, it will be best to digge the earth verie deepe, and there burying the stones before-hand, afterward to couer them with the earth. *Stonie grounds.*

If the Farme consist most of Forrests and Woods, 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 ynough to cut them downe and burne them, and then to till the ground. And such grounds are wont the first yeare to bring forth much, because that the moisture and substance, which before was spent in the bringing forth and nourishing of Trees, Bushes, and Hearbes, doth prepare it selfe wholly for the good of the Corne that is sowne vpon it; or for that it hauing beene fatted and growne better by the leaues and hearbes of manie yeares, which of it owne accord it brought forth before it was tilled, becommeth afterward sufficient to nourish and bring forth great abundance of fruits: and so it commeth to passe also, that being robbed of her former nourishment, in time it groweth leane, loosing the freshnesse and moisture which was maintained by the couert, and therefore continueth not so fruitfull as it was at the beginning. *Vntilled grounds.*

Sandie places may be made better by Dung and Marle, which yet notwithstanding, euen without such Husbanding, by meanes of some currant of water running vnder the Earth in some Countries, ceaseth not to yeeld good profit to their owners: but these craue rest, which is the principall remedie to helpe their weake and feeble estate, and also to be sowne with varietie of graine, as after Rye, some kind of pulse. The way to know such grounds is common: when the great Sand 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 wild fruits. 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 euery 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 fatnesse. But in our English Soyles we find, that our sandie and hard grounds doe beare best Barley at their first breaking, or when they are fattest; after, Rye, Oats, Fetches, or Tare. *Sandie grounds* *What is auailleth to know the nature of great Sand.*

The strong, heartie, and fat Soyle is good for Vineyards, and is apt to beare great store of Wheat-Corne, foreseene that the yeare be drie, especially in the moneth of May, but small store of any other encrease: yea, and if the times be much giuen to raine, they will beare but a little Corne, and great store of chaffe. Yet if the Seedsman haue a carefull hand in the bestowing of his seed, and doe not (as it were) cloy or choake his ground therewith, these fat Soyles will beare very well and sufficiently the first yeare, either whole Straw-Wheat, Pollard-Wheat, or Barley; and the second yeare, Beanes, Pease, or both mixed together; and the third yeare, Wheat or Rye, or both mixed together, which is called Maslyne or blend Corne. *Strong grounds.*

A raw, rough, and tough Soyle is hard to till, and will neither bring forth Corne, nor any other thing, without great labour, howsoeuer the seasons be temperate in moisture and 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, Winds, and Frost: but especially desire that they may not be watered with raine, for water is as good as a poyson to them. *Rough 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 end that the water may the better be conueyed away, which is *A clay ground.*

natu-

naturally mixt therewith, and cannot so easily depart, by reason of the clammie 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 doe it vpon some high ground, and neere ynough vnto the Riuer, and cause the Easterne and Northerne quarter, becaufe such places are subiect verie much to putrifaction, and verie vnwholesome.

To build vpon a high ground.

The territories of Croye and Ardose are more sound and wholesome, though they be more barren: but it must be made better, and much mended, and employed onely to that which it delighteth in: for the Baylife 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 and state. The old Prouerbe also saith, That a Householder should giue greater heed vnto his profit, and the holding out or continuing of that which he hath vnder his hand, than to his pleasure and rare commoditie.

Territories and fields lying in Croye and Ardose.

The nature of the earth must be knowne.

An old prouerb, That of compulsions comes no good.

Euerie Countrie fit for good Vineyards is stonie and grauellie, 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 toward 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 remoue your selfe farre from the Riuer, for the reason afore giuen.

The best Soyle is that which is blacke, crumbling, and easily turned ouer, that is to say, which easily falleth into small pieces in ones hand, and feeleth light, sweet, and fat in handling, like to that which is found in the countrey of Tourraine, Maine, and Anjou, which are fertile in all manner of fruitfulnesse and aboundance of goods, rich in Hills, Vallies, Pasture-grounds, Vale-grounds, Vineyards, and all sorts of fruits: but vpon good cause they giue place to Prouence, part of Languedoc, and Guienne, and the better places of Aquitaine, all which, by reason of the heat of the South Sunne, bring forth not onely in greater aboundance, but their fruits of all sorts of better qualities and more forcible. This is the land of Promise in our France, and hath no discommoditie saue that of the Southerne wind, which they call Austrault: which except it be tempered by the Northerne winds, doth almost euerie yeare engender 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 wind shut out and denied all entrance by lights, except when it shall be needfull, in the depth of Winter.

Good ground, a fruitfull countrey of France.

The fruitfulnes of Aquitaine.

The inconueniences of the Southerne wind in Languedoc, Prouence, and Guienne.

But to speake generally, the Soyle may be knowne to be good and to beare great store of fruits 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 fatnesse of dung, it bring forth flourishing hearbes, timber-trees, straight, thicke, hauing great armes, and abounding with store of their seuerall fruits, and those good and well-rellished in their kinds: and if it yeeld great fruitfulnesse 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 forth of it be sweet, or if the greene soddes thereof being broken in pieces, and steept two or three houres in water that is sweet and of a good tast, doe not marre or make worse the tast of such water, which must be tried by tasting of it, after that it hath beene strained and clarified: For naturally water issuing out from a spring, or wrung from something that hath beene steept in it, retaineth and carrieth with it the

The signes of a good and fertile ground.

tast

taſt of the Earth: and on the other ſide, if the Earth ſteept in Water, the ſame Water doe after ſuch ſteeping yeeld a ſweet and pleaſant relliſh: if caſt vp, and two or three dayes after throwne into the ſaid ditch againe, it gather on a heape, and riſe higher than the ſaid ditch; for in doing this, it ſhewes it ſelfe to be a fat Earth: and whereas one ſhall doe nothing but pare the ſaid ditch, without doing anie more, it will be but indifferent: but and if he come not to touch the edges of the ſaid ditch, it will be light earth: furthermore, if it be watred with raine, it yeeldeth a pleaſant ſmell. On the contrarie, the Earth muſt be iudged of no value, if it haue not all theſe ſignes of goodneſſe: 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 mariſh, which hath a ſalt or bitter taſt, which bringeth forth Trees and Hearbes that are bitter, cold, and thornie, as Brambles, Ferne, Bryers, Wormewood, Iuniper, Lauander, Broome, Butchers Broome, and other ſuch like: as on the contrarie ſide, Ruſhes, Roſes, ſmall Graſſe, three-leaued Graſſes, Thornes, Dane-woort, wild Plum-trees, and ſuch other things, doe ſhew the goodneſſe and fruitfulneſſe of the Soyle: for the things aboue named are not found or nouriſhed anie where almoſt but in the ſweet veines of the Earth. Yet, according to the opinion of *Serres*, all Clayes which are blacke, gray, or marlie, albeit a little tough and gluie, yet, if after their drying they become not hard, but crumble, and (as it were) fall to cynders, or if they be not much ſubiect to a kind of vomiting or caſting vp of water, or to an extraordinarie exceſſe of coldneſſe, they are to be reputed the fatteſt and beſt Soyles for Corne, though not for the Vine: and though they are leſſe apt to breed or put forth Wood, yet the Wood growing vpon ſuch Soyles is euer the beſt and the longeſt laſting.

Naughtie earth.

Chap. V.

The building and incloſing of our Countrie Farme.

PEace being purchaſed, then build thine Houſe, ſaith the wiſe and prudent Houſeholder: and the Author of the Latine Georgickes doth highly prize and value 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 doe. For as great Cages make the Birds 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 Fields, neither yet ſo great quantitie of Grounds, 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 and let goe vntilled, as neither to couet greedily, or aſpire to poſſeſſe other great and ſtately Farmes, when he is not able to husband and till that which he hath alreadie in poſſeſſion, if ſo be perhaps that a man long not to bring himſelfe wilfully into the danger of the Lords of ſuch Farmes, rather than to aduance or further their owne profit: like to thoſe bad Carters, which will not ſee or ſuffer either Horſe or Man to ſtand ſtill, vntill by continuall toyle and vnceſſant labouring of them about the grounds of his Farme, he bring to paſſe, that both Lands, Horſe, and Men be not able to hold out, but become little worth: which is the cauſe, that a Lord letting his Place and Demeanes to Farme, muſt make account, that the earneſt deſire and watchfull regard he hath to vphold and maintaine his grounds in good plight, will not be accompliſhed or manifeſted by deed of Indenture, 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, ouer-looking euer & anon the companie, and ordering vſed by the bay-life of his Husbandrie in the handling of his buſineſſe, that ſo he may preuent the miſchiefes aboue named. It is alſo ſaid of ſome men, That the eye of the Maſter doth fat

Great Cages make not their Birds good.

Vnfaithfull Farmers.

The eye of the Maſter fatteth the Horſe.

No steward like to the Lord himselfe.

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 euery day are behind hand in one dutie, or piece of worke or other, which ought to haue beene done.

The office of a good householder.

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 either they become enuied of their Superiours for it, or else at length causeth the Master to sell it againe. For the good Roman Husbandman saith, That a Householder must so diminish the charges of euerie thing by his labour, as that he may euermore haue moe things, and more to sell than to buy, and that he euerie day become more strong and powerfull than his Field: For seeing that the Lord and it must needs combate, wrastle, and encounter the one with the other, if the Field be too strong, then the Lord is wronged. Euerie place in the Fields is also oftentimes to be looked vnto, and if need be, speedily repayred, because the decay of anie part of it, or of anie thing which is to be vsed in it, being let alone and neglected onely one yeare, draweth on another losse as great as it selfe, and costeth thrice as much to make it vp againe, as and if it had beene looked vnto within a moneth or fifteene dayes after the decay did fall and happen. And their words in this case are of no value, which say, That Grounds troden vpon and trampled with manie feet, are halfe eaten and spent: or, that Ground lying farre off doth breed nothing but flagons and bottels. For I would haue the Master to be more commonly there, than at home at his House, and that he should so dispose of his estate, as that there may be both for all necessaries of food, and so forth, and somewhat to spare: otherwise his House and Demeanes should minister more vnto his seruants than to himselfe, and his charges should exceed the encrease 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 belongeth vnto him, not troubling his mind with Hunting, Banquetting, much Companie keeping, Drunkennesse, and welcomming in of euerie commer, and so to giue himselfe 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 wast what they yeeld in encrease.

The seating of the dwelling House.

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 be 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 Mists: he shall not be oppreſt with cold in Winter by reason of Ice, nor ouer hot in Summer, and the Waters and Flouds which runne downe from the top of the Hills shall not threaten, much lesse doe harme vnto the foundation of his dwelling place: as also he shall not be too much subiect to the Winds and Raines of the whole yeare: hee shall procure his principall Lights to stand vpon the Sunne-rising in the moneths of March and September: for the Winds blowing from those quarters are drie, more hot than 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 wast the darknesse and grossenesse of the Aire: adde further, that looke by how much his House shall be set more vpon the said Easterne point, by so much the more easily it will be able to receiue that Wind in Summer, and be lesse beaten in Winter with Frosts. The Barnes shall be open towards the Sunne-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 towards the South, and borrowing somewhat of the East, for that the Winds 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 Summer, during the vehement heat thereof, and that at the houre of their ease and rest, which is Noone-tide: for at this time and houre, if you giue them not some breath of aire to coole them withall, the heat of the Noone Sunne,

Stables.

which

which would ſtrike in, and their owne, which is alwaies in the Stable, as alſo their breathing and preſſe of the whole companie of Horſes, being there together, would ſet them in ſuch a ſweat, faintneſſe of bodie, and loathing of their meat, as that the verie 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 Coaſts 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 enioyned, as that the differing qualities and conditions of Countries, where ſuch building muſt be made, may not moue you to diſpoſe them otherwiſe: for ſeeing there are found in ſome Countries ſuch Winds as are almoſt ordinarie, and may be ſaid to haue gotten (as it were) a habit, and thoſe blowing from ſuch Quarters as lye vpon the Sea or Mariſhes, or ſuch other, and therefore bring with them ſome noyſome qualitie, or at leaſt little profitable; it muſt needs 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 Winds, it ſhall be left in your free choice to make ſuch Lights as may ſeeme moſt neceſſarie in your owne iudgements, being euermore directed againſt ſuch annoyance as the Ayre might bring from that place whatſoeuer from whence it commeth.

The baſe Courts

And although that euerie one build after his owne humor, yet the cauſe ſhould ſo ſtand, as that reaſon ſhould rule euermore: and ſurely, ſuch a man ſhould be eſteemed but of a ſlender iudgement, 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 vpon the Court and forepart of his Farme by which they muſt enter that come to it, and another open vpon his Gardens and principall 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 will be meet and conuenient for him to doe in manner as followeth.

Reaſon muſt haue place before whatſoeuer elſe.

Of the Lights to be made in Building.

Draw a great Court and wide, and that verie ſquare euerie way, in the middeſt thereof cauſe to be caſt two Fiſh-ponds at the leaſt; one for Geeſe, Ducks, and other Cattell: the other, to water, ſteepe, or ſoften Lupines, Oſiers, Roddes, and ſuch other things, as alſo for the rotting of your dung: and ſomewhat more to the further ſide, a Well with two or three troughs of hewen ſtone, to water your Cattell and Poultrie at, if you haue not the benefit of a running Water, or ſome neere Riuer, either great or ſmall. Make alſo two Dunghils; the one, to containe and rot all your new dung, and to keepe it till the yeare following: the other, that from it you may take the old and rotten dung, and carrie it out into the fields. Theſe two Dunghils muſt bee farre from them, and on a ground falling from the fore-named Fiſh-ponds and Well, if ſo be that the place will affoord 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 Dunghils muſt of neceſſitie be kept in continuall moiſture, to the end, that if peraduenture amongſt the Straw, Litter, Stubble, or Chaffe, which is brought thither, there be the ſeeds of any Hearbes or Thornes mixt among, they may rot, and not bud or bring forth any Weeds, when the dung ſhall be ſpread vpon the ground. And therefore expert and skilfull ſeruants doe 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. Wells.

This Court, containing two acres ſquare, ſhall be compaſſed in with a Wall of eighteene ynches thicke, and tenne foot high from the ground, for the reſting of your Buildings vpon that are within: and to meet with the danger threatned by Theeues, and ruines procured by Raine, it ſhall be ſtrengthened with chaynes on thoſe ſides which lye next vnto Wayes, as alſo with good Rafters, according to the greatneſſe of the commoditie of your place, and other ſtuffe.

The Wells of the Court.

The dore of the House.

In the middest of the Wall, and in the fore-part, which is the part lying vpon the Sunne-set, you shall make your Gates and their Porch, and in like manner a couer ouer head, to keepe the said Gates from the Sunne 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 Cart laden with Hay or Corne may goe in with ease. You shall raise it halfe a foot aboue the ground, and defend it on the outside or vpper ground with a threshold well and fitly layd, 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 off their hookes with Leauers or Crowes of yron standing on the outside, which they might the more easily doe, if they should be cut short of the Earth, and not haue the helpe of the Threshold.

A partition.

Ouer-against the Porch, toward the trade-way, you shall make a partition of tenne or twelue furlongs, well inclosed with Ditch and Quickset, hedged round about, for the feeding of your tyred, wearie, or sicke Cattell, which cannot keepe or goe in companie with others, as also wherein 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 day-light comming in vpon the side toward the street, Westward; notwithstanding, that his Windowes shall lye vpon that side of the Court which is Eastward. His Kitchin shall be raysed two or three steps aboue the ground, to the end it may be freed of the moisture wherewith the Court aboundeth in Winter: it must also be high built and 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 friends and seruants may at all times easily bestow themselues therein. The Ouen shall be set without the roome, hauing the mouth in the inner side of the chimney of the said Kitchin, and lower than the Mantle-tree, not farre aboue the Hearth.

The Farmers Ouen.

At the entrance of the said Kitchin, and in such place thereof as shall be least subiect to the Sunne, 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 shee is to make about her Milke vessels. On the other side of the said Kitchin she shall haue the like house of Office, or vaulted roome, which shall 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 stead of an vpright Table, set as you goe 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 maid seruants and children, and a third ioyning close vnto it, for to keepe foule Linnen: To the walls of which roome you shall goe forward to ioyne a fourth, which shall be sufficient large, and the dore to goe into it shall stand in the court without, and it shall serue for fuell, working tooles, and other necessarie things.

Garners.

And the vpper part or Loft of this roome shall serue for Garners to lay Fruits, all manner of Pulse, Corne, Hearbes, and Roots in, that are to be kept.

Stables for Horse.

Vpon the right hand as you goe in shall be Stables for Horses, reseruing also a sufficient great low roome bounding the great Porch, for the Carter and other men seruants, as also for the keeping of Collars, Cart-saddles, Traits, thicke clothes, and other furniture for Horses: and along, at the end of your Horse stables, you shall make

Lodgings for men seruants.

Oxe-houses.

Houses for Oxen and Kine. And ouer the said Stables, Lofts and Roomes for Hay and Prouender for Cattell, adding to the end of these great Houses a little one, to keepe Calues in of both kinds, which you haue wained, with intent to bring vp for further seruices. At the end of all these Beast-houses, and close to the same, you shall appoint a Dog-house, if you like not better to place the same in the midst of your base court vnder some small Shed layed ouer with boughes, couered with straw, open

at

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.

In the place right ouer against the Porch of the Farme shall open the dore of your owne house, which by a stayre 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 widenesse, with an out-cast at the further end vpon the Garden, and that with a descent of a like paire of stayres vnto those at the entrance. Vpon the right hand of this entrie shall be your Kitchin, Store-house, Butterie, and a place of recourse or lodging for two or three seruing men: betwixt which Kitchin and Butterie there shall be a winding stayre which shall haue his foot into the Kitchin, and thereby you shall goe vp to the Corne-lofts 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 breadth as your appointed platforme layeth out vnto you, borne vpon a rayled vault from the ground, well stayed vpon bearing pillars, and furnished with casements to take the Aire at, vpon both sides, and that to the end that you may haue an vnder storie of like length and breadth to that aboue, which shall be a halfe-cellar and a halfe-vault; which, besides 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, and your Wood also, and your Fruits likewise during the Frost. Your Lodging or Mansion shall haue no more than 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 Winds, which will saue you a great deale of charges, when as you shall not be forced to vse the helping hand of Tylers euery houre. Vpon the left hand of the said Alley or Entrie shal be 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 hereof, if the bodie of your House shall haue compassed in place ynough, you shall make a Chamber to lodge strangers; the way into, as also out of which, shall be by a turning stayre on that side toward the Court, that so such 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 moue you not rather to build for the entertaining of your friends & other strangers on the other side of your Hall. You shall make your fairest Lights 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 eye vpon your folke, and to see who be commers and goers to your lodging: and at the end of euerie such little chamber you shall make a Priuie, for the necessarie vse of euerie of the two said bodies of the house. Whatsoeuer roome shall be ouer head or aboue your Alleyes, Hall, Chamber, Wardrobe, & Chamber for strangers, shall be for Garners, that so you may lay apart, and by it selfe, your Rye, Wheat, Pulse, and Fruits, and cast aside your foule Linnen, and they shall all of them haue pretie 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 Henne-house, and roomes for other Fowles, fashioned foure-square like a tower, but yet more long than wide or broad: in such sort, as that the lowest roome shall serue for Water-Fowles, as for Geese and Duckes by themselues; and the vpper for those of the yard, together with their Pearches and Baskets to lay in: and you must make vnder the Henne-loft some separated roome 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 Law will permit you such a one) in fashion like a round Turret in the middest of your Court.

The entrance of the householders dwelling place.

The round staires.

The Kitchin.

The chiefest Lights must be toward the East.

Garners.

The North wind good for the keeping of Corne.

A Henne-house.

Turkie Hennes and Cocks.

Fesants.

Sheepecotes and Swineſties. Lambe cotes. Cotes for Weathers. Cotes for Sowes. Cotes for Goats.

Set your Sheepe-cotes and Swine-ſties vpon the South, in ſuch manner 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 Hurdles, to draw the Lambes from the Ewes, as alſo the Rammes in like manner: and cloſe vnto theſe ſhall you make your Swine-ſtie, raiſing two incloſures of Wals well dawbed on both ſides, the one for the Sowes, and the other for the Hogges. In like ſort you ſhall deale with Goats, making ſeuerall Cotes for them: and the vpper parts of all theſe ſhall ſerue for Garners to lay their meat and whatſoeuer food neceſſarie for ſuch Cattell.

Barnes.

Right ouer againſt theſe Sheepe-cotes you ſhall make your Barne, with his great dore of the wideneſſe of the middle Bay, and that to giue light to the Threſhers: Ouer the porch of the ſaid Barne (if the Law will not permit you to build a Doue-houſe on the ground) you ſhall make you a place to keepe Birds in, of the ſame breadth 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 heat of the Sunne, ſhall annoy them. One of the ſides of your Barne, all along for the ſpace of three Bayes, ſhall ſerue to put your Rie and Wheat in, and the other ſide, for as much length, ſhall containe your Pulſe or March Corne: the middle part is that which is of the breadth 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, Drayes, Tumbrels, Waines, and other Inſtruments and Furniture for Husbandrie, if you pleaſe not rather to make the ground-worke of your place to keepe and nouriſh Birds in, to ſerue for theſe purpoſes, when as your authoritie will not beare you out to build a Doue-houſe on the ground, becauſe you hold not in fee Farme, or Copyhold.

Gardens and their partitions.

Vnder, or vpon the ſide of your turne-ſtayres, according to the breadth 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 ſtayre, which you ſhall make to deſcend from aboue, from your alley that is ouer them: the one of which Gardens, as that on the right hand, ſhall be for Pot-hearbes; and the other for Quarters and Pulſe, together with a place for Bee-hyues.

At the end of a great Alley which you ſhall make from your winding-ſtayre to the wall of your Orchard, running betwixt the two Gardens, without any manner of partition, excepe two Hedges of Quick-ſet, ſhall be your Orchard, ſeperated from your other Gardens by a wall continuing all along the two ſides of the incloſure of your place. And in the middeſt of the ſaid great Alley there ſhall be Wells, 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 well 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 way 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 freſh-water Fiſh, you ſhall plant Willowes.

The two Nurceries for Pippins and Stocks.

Where you enter into your Orchard out of your Garden, you ſhall on the one ſide make a Nurcerie for Seeds and Kerniels, and on the other ſide for Stocks and Plants, and in the middeſt the rankes of remoued and grafted Trees, and at the end below you ſhall plant by ridges your Oſiers, which may, for their better proſpering, take the benefit of the coolenesse and moiſture of ſome ſmall Brooke.

The backe gate.

The falſe Gate (otherwiſe called the Backe or field-Gate) on that ſide toward your Medow, made for your owne going in and out alone, ſhall be ſet out and garniſhed with two Cheurons, ſet vpon one maine Timber, and no moe, and foure or fiue Battlements aboue, and ſhut with a ſtrong dore: for that way you ſhall goe into your Houſe priuily, and in like ſort goe forth againe when it ſeemeth good vnto you, without your ſeruants their priuitie, and for your auoiding of the noyſomeneſſe of the Beaſts Houſes and of your great Court. And to this end you ſhall haue a ſpeciall

paſſage

passage from your Stable or Garden, not farre from your house wherein you tread your Grapes, to driue your Cattell by continually.

Notwithstanding all which, yet my meaning is, that your cost and course in building should be according to the reuenues of the grounds, or value of the profits, and that (as saith *Cato*) the dwelling House be not set after seeking of Grounds, nor Grounds 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 than were requisite for the profits of the grounds, are a great cause of much losse in the Fruits of the same.

The building must be according to the greatnesse of the liuing.

Chap. VI.

The dutie of a Father of a Familie, or Householder.

After I haue thus disposed of Roomes and Building, I wish and desire, 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 them, as also he which doth take his chiefest delight in other things, and spendeth his time otherwise, must of necessitie commit himselfe to the mercie and discretion of a Farmer, which will mocke him to his face, and will impaire his grounds and house also, heaping thereto a world of quarrels and suits, which he will raise: or else he must trust to some other accomplisher of the businesse, either in gouerning or waiting & attending: and he asking counsell of other the Farmers thereabout, they wil make him beleeue things to be not so good by the halfe as they are. And indeed we read for a certainetie in the Roman Histories, That the Earth was neuer so fruitful as then when it was allured & woon by the industrie of the famous Roman citizens, & deliuered out of the tyrannous handling of grosse-headed peasants, whom we see before our eyes, notwithstanding that they are altogether ignorant, to grow rich at our costs & charges, & to the great spoile of the ground which they husband & till. There is nothing comparable to the ouer-looking eye of a prudent & discreet Lord, and one that is accustomed to Husbandry, and which looketh after & contenteth himselfe with such estate as may stand with his profit, and keepeth to himselfe the principall charge, which is a watchfulnes & earnest desire to preserue his goods, 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 do withall, except a little ouersight: Neither yet would I haue him, in so doing, that he 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 & vnderstand the natures and choice of Men, Cattell, & Grounds, and let not that work possibly fall out, which he himselfe knoweth not to doe, if he should stand in need, or else to giue directions in and to command vnto others; at the least let him vnderstand the times & 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 command, and doth nothing to the workman but trouble and grieue him: and it is the manner of men to mocke at such as command & will things to be done which are nothing to the purpose, but must afterward be vndone again, or els abide without any profit. This is it which the great Husbandman *Cato* hath written, That the ground is very ill entreated & grieuously punished, whose Lord & owner knoweth not to teach & cõmand that which is to be done: but must depend & relie wholly vpõ his Farmer. Therefore it is most necessarie, that the father of the Familie, or owner of the Farme, be most expert in euerie worke due for euerie Season of the yeare, as thus: first, for such Earths as are applyed onely to Tillage, he shall know, that if the Soyle wherein he

The father of a Familie must haue skill in matters of Husbandrie.

What things are most fit to be farmed out.

he liueth be a ſtiffe, ſtrong, heauie, and tough Clay, he ſhall then, from Plow-day, which is euer the Munday after Twelfth-day, till S. *Valentines* day, breake vp his Peaſe Earth, where he intendeth to ſow Peaſe and Beanes, which muſt lye for Bait, which is, till it haue receiued Froſt and Raine, that thereby the Mould may breake: but if his Earth be a mixt Earth, and of a more light nature, then from Plow-day to S. *Valentines*, he ſhall breake vp or fallow that Earth which he intends to keepe tilth the yeare following: From S. *Valentines* day till S. *Chaddes* he ſhall ſow his Beanes, Peaſe, Fetches, or other Pulſe whatſoeuer: prouided alwaies, that he ſow his Beanes firſt, his Peaſe next, and his ſmaller Pulſe laſt of all: He ſhall from S. *Chaddes* day till a fortnight before our Ladie day, commonly called the Annuntiation, ſow his Oats, either vpon the Innams, which is land ſowne the yeare before, or on the tilth or fallow ground prepared for the purpoſe: from a fortnight before the Annuntiation, till a fortnight after, he ſhall ſow his Barley, either on Clay ground, haſſell, or mixt Earth: and vpon light ſands, from mid Aprill till Whitſontide: from May day till Midſummer he ſhall fallow his ſtiffe Clayes, or Summer-ſtirre his lighter mixt Earths: from Midſummer till Lammas he ſhall Summer-ſtirre his ſtiffe Clayes, and foyle his lighter Earths: from Lammas till a fortnight after Michaelmas he ſhall Winter-rigge all ſuch land as he intends to ſow Barley on the yeare following: He ſhall alſo in that ſeaſon ſow his Wheat, Rye, or Maſlyne: he ſhall then alſo furrow or cut ſluces whereby to drayne the water from his arable land, becauſe the drier that it lyes, the better it is, and euermore the more fruitfull, as the experience of Husbandmen find by a continuall practiſe. And as hee thus knoweth how to diſpoſe and order his arable ground, ſo hee ſhall alſo know how to husband his Paſture or Medow ground: as namely, in the months of Ianuarie and Februarie he ſhall firſt plaſh and cut his Hedges and Quick-ſets, that thereby they may grow thicke and ſtrong at the bottomes: hee ſhall then caſt his Mole-hils leuell, and kill Moles, and prune ſuch Fruit-trees as either haue decayed or dead branches in them: or elſe ſuch ſuperfluous ſuccours, as growing from below, robbeth the trees of much ſap and nouriſhment. In March, if your ground be not verie fruitfull, but of an indifferent temperature, you ſhall lay all thoſe grounds of which you intend to haue Hay: but if they be fertile, and beare much burthen, then if you lay them at May day, it will be fully early ynough. At Midſummer you may mow your fruitfull low grounds, and at the tranſlation of S. *Thomas* you may mow thoſe which lye higher and are leſſe fertile: obſeruing this, that if the ſeaſon of the yeare be moiſt, then you may let your high grounds grow the longer, and cut your low grounds ſooner; but if the ſeaſon be burning and drie, then you muſt cut your high grounds the ſooner, and let your low grounds ſtand the longer, becauſe the firſt will burne at the root, and the other retaine his moiſture. All theſe months of Iune, Iuly, and May alſo, when either the weather or other hinderances detaine you from theſe greater works, you ſhall then lead forth your dung, compaſſe, or meanure to your tilth or fallow field: and it is alſo a good ſeaſon for the bringing home of your Fuell, eſpecially when your prouiſions lye farre off. At Lammas pull your Summer fruit, and reape your Corne, and your other Graine, either before or after, as you find them ripen. After S. *Mathewes* day if you haue any meanure vnlaid, lead it forth, for one Load then beſtowed on the Earth, is more precious than two in the former Seaſons. About a weeke before S. *Lukes* day begin to skowre your Ponds and Ditches, plant and replant Fruit Trees: and if any of your Hedges were left vnplaſht in the Spring, plaſh them now, for it is an excellent Seaſon. At Allhallontide cut downe your Timber, chiefely your Aſh, Elme, or Ewe, or what elſe you prepare for Cart, Plow, or Harrow Timber. Before Chriſtmas bruſh your Hedges, and weed them from all dead and ſuperfluous branches: alſo then, and to the end of Ianuarie, is good ſtubbing of Wood grounds, and remouing of Bees: alſo then you ſhall bare the roots of your Fruit Trees, and couer them againe with rich Mould the March following. Thus our Husbandman, according to the opinion of *Oliuer de Serres*, hauing enriched his memorie with theſe knowledges, ſhall liue a Free man, and no Bondſlaue, a Maſter, and no Prentice, to his Farmer or Baylie.

I meane

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 Chiefetie of the whole, and that he doth withdraw himselfe from home, and secretly returne thither again 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, wee haue counselled him to prouide a backe gate in the end of his Inclosure. Let him not goe 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 faithfull Atturney, to whom he shall giue nothing but the onely counterpane 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 Seed time & 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 carry himselfe pleasant and courteous vnto his folke, not commanding them any thing in his choler: for boisterous and rough handling will preuaile as little with men as with stiffe-necked iades. Let him speake familiarly vnto them, let him laugh and ieast 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 acquaint 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 aduice, though he had determined the same course before: for they will worke with more cheerefulnesse, when they thinke that the matter is carried 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 commanding 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 than aske twice, except it be in their extreame need 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. And there remaineth nothing more for his office, but his seruice to God, loue to his neighbours, good instructions to his children, honest examples to his seruants, and peacefulnesse with all men liuing: hee shall rather lend than borrow, rather buy than sell those things hee hath vse for, but euermore better furnisht to sell than buy necessarie commodities. This is *Serres* opinion, and worthie a generall imitation.

The chiefe key of all the rest.

A priuie dore.

To order his Suites.

What time the Householder should keepe at his Farme, and when he may best goe abroad to the Towne, or elsewhere.

Men cannot abide to be roughly entreated.

Chap. VII.

The Office of the Farmer.

TAke vnto you for your Farmer a man of indifferent yeares, not sickly, but lustie and strong, and of the same Countrie & Soile that your Farme lyeth 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, & his children well nurtured: Such a one as hath no Farme or Inheritance neere vnto your house, who frō his youth hath bin hardly brought vp, and well experienced in matters and businesses belonging to Husbandrie, or otherwise, by means of great diligence & good will toward the same, hath

hath attained the Mysterie of Husbandrie. One who is a sparing and sober minded man, not poore and verie needie, a gadder to Townes, quarreller 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 haunting Markets or Faires at Townes, if it be not vpon verie vrgent necessitie; not admitting of new Wayes or Paths, and Breaches into his grounds; or suffering any encroachment to be made vpon the least part of the Inheritance belonging to the Farme; for an ynch of ground lost in one yeare, is worth a foot within two yeares after: Which will not vndertake to lodge any Guest, if he be not the verie friend and familiar of the Lord of the Soile: which is giuen to haue himselfe and all his familie cloathed rather for profit than for pleasure; as namely, to saue them onely from the Wind, Cold, and Raine: for which purpose shall serue Garments and Sleeues made of Skinnes; Caps, Clokes with Hoods, or Casslocks of Canuas: for by this meanes there shall be no day so boisterous and cruell, wherein they may not worke abroad: 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 Master: Not giuen to play the Merchant for himselfe, nor to lay out his Masters money in Cattell and other Merchandise; 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 demanded such Monies 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 hee 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 layd out; for Paper will admit any thing. Againe, you shall not put him to make Reckonings of long time, neither yet of moe things than his memorie may well carrie away. It behoueth that he be skilfull in all things, for which he hath Tooles, Instruments, and handy worke to exercise himselfe with and in, about his matters of Husbandrie: As also that he know to gouerne and amend all such Tooles as he hath the handling of, or which his folke vse: otherwise, if there should but need a handle to a Spade, or a nayle to a Horse or Tumbrell, there must presently bee admitted into wages a Nayle-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 Craftsmen, 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 businesse. He must haue Tooles and Instruments twice so manie in store as he vseth to haue Workmen, to the end they need not to borrow any thing of their neighbours, for otherwise hee shall lose more in dayes workes not fulfilled than would pay for the buying of his yron Tooles. Againe, let him at the first time doe his worke so well, as that he need not to goe ouer it the second time: For in attempting to mend that which hath beene done amisse for lacke of heed 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, and without hope of recompence for the time to come, not being fit to yeeld such profit as it was wont in yeares past.

Husbandmens apparell.

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

Paper endureth all things.

A Farmer must haue much knowledge.

Let him haue his eyes alwaies vpon his people, and ouersee his Cattell euerie night, and not onely 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 there be any 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 euery one of his people what he is to doe the next day in the morning. Let him be last in bed, and vp againe by breake at the spring of the day, to see his companie euery one set to his appointed worke: let him euery morning

view

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 falls, wrenches, and ſuch other inconueniences. Aboue all things, 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 eat and drinke among his ſeruants, and of the ſame, and at the ſame Table. Let him pay them their owne iuſtly, declare his mind vnto them in mild ſort, and not to pay them any thing before hand, if it be not in caſe of loſſe or ſickneſſe.

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 ouerſight ſhould be yours) let him not runne day after day behind 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 vnſeaſonableneſſe of the time, or hardneſſe of the yeare, if either of the two can in any likely ſort be alledged: In which caſes alſo you ſhall ſomewhat beare with him, and let him pay at many and little payments what he ought to haue payed together, thereby to eaſe him ſo much as may be; and to the end he may bring his Farmer out of his debt, he ſhall not let to take it by penny and penny, euen by anie verie ſmall paymenes. Doe not pinch him of ſuch neceſſaries as hee ſhall requeſt of you, whether it be for the maintenance of your Houſe, or the repairing of anie other things that doe belong vnto you. Watch him not ſo neere, 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, and rebuke him not ſharply for that which you ſhall not find ſo well done, but counſell him to amend ſuch and ſuch bad tricks, ſignifying vnto him therewith, that in ſo doing hee ſhall greatly pleaſe you. Now adaies Farmers doe not thruſt themſelues vpon a man, or offer themſelues in multitudes as they haue beene wont to doe in time paſt, and therefore it is no more a common thing for Maſters to make choice of ſome one among many, but he muſt be content to take ſuch a one as he can find. 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 dealt withall: and contrariwiſe, the Picard doth ſtand in need 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 choice 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 heed, he will rather procure his owne profit than yours. The Gaſcoine is hot, and quickly fallen into choler. The Prouinciall is haughtie, and cannot endure to be reproued. The Poiteuins are deceitfull. The Auuerguaes are induſtrious, painefull, and enduring 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 witte, ſubtill, and louers of their profit. The Charram, Beauceron, and Soloignois, are laborious, peaceable, apt, and giuen to be gatherers and cloſe graſpers. The Champenois and Burguignons are franke, free, and of a ſtout heart, 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 error. 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 poſſibly you can, applying and fitting your ſelfe to beare that in him which you ſhall ſee paſt hope of amendment.

Neceſſarie things to be prouided.

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

The naturall inclination of the ſeuerall Countrimen of France.

Normans.
Picards.
Bryais.
Limoſins.

Gaſcoins.
Prouincials.
Poiteuins.
Auuerguaes.

Angeuins.
Taurangeois.
Manceans.

But

But of manie and diuers Nations, haue a care to chuse out of manie bad, the best, and after such choice to be warie and 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 enclined to one thing than vnto others.

Chap. VIII.

That the Farmer must haue knowledge of the things foretelling Raine, Wind, faire Weather, and other alterations of the Seasons.

The foretelling of Raine.

YOur Farmer, although he need not to be Booke-wise, notwithstanding, by long and assured experience must haue some knowledge in the things fore-shewing Raine, Wind, faire Weather, alterations and changes of the Aire, of all the parts of the yeare, and of the qualities of the same, of Tempests, Lightnings, Thunders, Colds, Frosts, and Haile, that so, according to the fitnesse of the Seasons, he may begin himselfe, and set all other his workmen to their labour.

Hee shall know before hand that it will be Raine by these and other such like signes: If the Moone, when she is verie new, haue her hornes obscure: but if the higher horne of the said croisant be more obscure and darke than the lower, it will raine about the last quarters: but if the lower be more darke and obscure than the higher, it will raine in the first quarters: and if it be blackish in the middest, 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, hee shall marke whether the fourth, or (as some will haue it) the fifth day of the age of the Moone be rainie: for in these dayes lyeth the manifestation of whatsoeuer shall follow in the whole course of the same, whether it be vnto Winds, 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 appeare a little darke Cloud: 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 somewhat grayish: or if it haue a circle about it like to that of the Moone: 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 anie cold: so if when it riseth it cast forth 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 forth 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 appeare neere vnto it, vpon the left hand, a little small Cloud: or if in setting, it shut vp it selfe in whitish Clouds, like vnto fleeces or cardings of Wooll, and that they doe spread themselues broader and broader, it will raine within a few dayes: if the other Planets be also compassed about with a circle, it is a signe of raine: if the Starres doe not twinckle, or giue their accustomed glimpses, or shew 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 Summer the Lightnings doe exceed the Thunder in quantitie: if it thunder at high Noone: if vpon the tops and highest parts of the Hills there flye scatteringly, and in wandering sort, thicke and grosse Clouds:

clouds: if after that raine is ceased, there rise a sharpe and cold wind; for thereby the raine will begin againe afresh: if little Birds, haunting the Fennes, be continually washing themselues in the water: if the Crow doe 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, and boast her selfe of her wings: if the Geese crie and flye more than they haue beene accustomed: if the Bees will not flye farre from their Hiues: if the Heron wander and whirle about to and fro in the middest of the fields all sad and lowring: if Oxen eat more than ordinarie, lye downe vpon the right side, looke toward the South, licke their hooses all about: if the Kine looke vp into the ayre, and draw in the same: if the Asses bray: if Cockes crow 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 than vsually: if such creatures as are gentle take not so good rest and continue not their peaceable courses as they did before: if the Wolues yell and runne neere about Houses: if Spiders fall downe, not being blowne downe of the wind: if Dogs tumble and wallow on the earth: if Pigeons come late home to their house: if Flies, Waspes, and Hornets, Fleas and Gnats, bite more keenely than ordinarily they are wont: if the sound of Bells be more lowd and shrill, and heard further off, than they were wont: if the Cranes forsake the valleyes, and returne at a verie good houre: if in Summer it lighten when it thundreth not: if Asses, old and young Mules, without present occasion, doe rub their eares a great while: if the Tezill, gathered and hanged vp in some part of the house, doe shut vp and close his prickles, as taking a new shape, and casting off all his roughnesse: if the Sparrow crie early: if the little Frogs croope more than ordinarie: if the Soot of the Chimney fall hastily and in great quantitie: if the Ashes clutter together into balls: if the Oyle sparkle in burning Lampes: if the three-leaued Grasse doe close vp it selfe and gather together his leaues: if the Swine doe 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 licked the sole of her foot, and trimming the haire of her head, doe reach the said sole of her foot oftentimes ouer her eare.

Likewise he shall foretell great aboundance of Raine, if the Clouds be darke, deepe, and thicke: if the drops of water falling from the Skies be somewhat whitish, and make great bubbles and great falls here below: if the Raine fall mildly, and begin to fall with small drops: if the Water fallen vpon the Earth in great aboundance without any wind, be incontinently drunke vp of the Earth: if the Waters of the Fennes and standing Pooles grow warme without the heat of the Sunne more than ordinarie: if Hennes with their Chickens by and by in the beginning of the Raine doe flye vnto their houses: or if in the morning they come forth late, and (as it were) not vnconstrained to their feeding: if the heauenly Bow (called in Latine *Iris*) doe stretch it selfe towards the South; or if it appeare double, triple, or foure-fold in the Heauens; and if it appeare after it hath rained, the feare of future Raine is not quite abandoned. *Signes foretokening great store of Raine.*

He shall foresee times of Snow in Winter, if he perceiue that the clouds of darke ones become as it were whitish, chiefely when the North wind 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 ayre grow thicke, and somewhat rebated of his sharpenesse: if it make a drie Cold, without any Frost: if together with many signes of Raine there appeare many also of Cold approaching. *Signes foretokening Snow.*

He shall iudge in like sort of Haile, if in the Spring or Autumne he see that the clouds of blacke and darke ones become whitish: or if about the moneth of Aprill, together with many signes of Raine, there be mixt darke and whitish clouds. *Haile.*

Hee shall giue good heed to the tokens fore-shewing future Winds, and they are these: if the Sunne at his setting be red: if the Sunne set amongst reddish clouds: if the *Signes foretokening Winds.*

Sunne all the day long, or a great while before his setting, haue carried a Purple colour, and setting, seemeth greater than ordinarie: if the Moone haue a red face: if the Clouds in a faire Season and beautifull Skie be carried on high: if the Clouds appeare in the Heauens gathered together as they were flockes of Sheepe: if Forests and the high tops of Mountaines doe make a noyse: if the starres of Heauen runne euerie way: if they seeme more grosse, and of greater light than vsuall: if it thunder in the Morning, or in Winter: if in the Spring time it thunder more mightily and ofter than it lighteneth: if the sound of Bells be sometimes heard very easily, and by and by not to be heard: if the Sparrowes doe 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 Ayre: if the Duckes doe spread and flicker with their wings often and a long time together: if the Heron crie toward night as he is flying: if the flame of the fire cast forth many small sparkles: if the Wood doe crackle and breath out wind more than ordinarie.

The signes foretokening Thunder, Lightnings, and Tempests.

Hee shall fore-tell the happening of any Thunder, Brightnesse, Lightening, and Tempest, when hee shall see, that in the morning and euening in Summer, or in the beginning of Autumne, the Sunne yeeldeth a greater heat than ordinarie; and when there appeareth in the ayre a verie thicke and deepe cloud: if the Wind called *Typhon*, causing Whirle-winds, doe blow ragingly, and that the ayre be full of many thicke and darke clouds: if the dayes in Summer or Autumne be more feruent and hot than the season of the yeare can naturally beare: and that sometimes at the Sunne-set there appeare a Raine-bow toward the West: if there flye in the ayre many ayrie 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 cleare and shining at his setting, hauing about it manie small clouds apart one from another, and withall somewhat red and pleasant: when the Sunne in the time of raine setteth, hauing his face red and fierie: and when the Day-breake, which men call the Morning, shall appeare of the naturall colour of white; and indeed the Prouerbe (A red euening and a white morning setteth the Pilgrime a walking) teacheth as much: if when the Moone is three or foure dayes old, it shew it selfe pleasant and cleane without spots or clouds: if when it is in the full, it be seene cleare: and that that part of the Heauens, called S. *Iames* his way, appeare cleare and bright: if at euening there appeare many Lightnings, not accompanied with Thunders, or Clouds: if at euening or morning (at what time of the yeare soeuer it be) the deaw fall in great abundance: if the Northerne wind blow strongly: if the Owle after Sunne-set doe come forth and whoop all the night without ceasing: if the little Flies before Sunne-set doe swarme together, and sport themselues in the Sunne-beames: if the Crowes flocke together in great companies, and call with a full voice: if the Crow call early in the morning: if the Bats doe come forth of their holes at Sunne-set, and flye vp & downe in the open ayre: if the Cranes flye high, and doe not betake themselues verie quickly to a lower pitch: if Water-Fowles doe haunt somewhat farre off from the side of the Water.

Signes foretokening the beginnings and endings of times.

And although that the parts of the yeare 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, sometimes sooner, sometimes later, the good Husbandman shall haue, ouer and aboue the common, certaine signes and tokens to fore-see the beginnings and endings of the times of the yere as they may fall out extraordinarily. As if hee know that Water-Fowles forsake the Water, or that the house-Nightingale, especially the Male, doe sing more than 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 leaneness: or if the Sparrow more than ordinarie call betimes in the morning, he shall say that Winter is at hand. In like maner, if he see that the Westerne wind begin to blow, and that the cold rebateth: if the Swallows do returne in flocks:

if

if the Ducks haue their breast-bone white at the end of Winter, he shall iudge, that the Spring will be verie quickly: for such creatures doe sensibly feele and obserue the bounds and approaches of Seasons, howsoeuer out of course and extraordinarie that they be.

If in Winter, in the beginning of Frosts, hee perceiue, that the Birds haunting standing Waters, doe 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 thin flakes: if at the beginning of Frost there fall some small, round, and white Haile: if the little Birds doe 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 hoter coale: if that Woollen or Linnen dipt in Water doe by and by freese: if the vtmost parts of the bodie become suddenly cold: if in Winter the things which were wont to be moist and wet are espied to become drie: if the drops of Water comming from the roofes of Houses doe fall 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 verie violent and of long continuance. *Signes foretokening Cold.*

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 appeare before the end of October: or that Cattell, which goe together in Heards, doe trample the Earth to myre. *A long Winter.*

Hee shall iudge great Summer heat to ensue, if hee see that the Rammes and old Sheepe doe couple together oftentimes in the Spring: for so indeed of the constitution and temper of one part of the yeare, a man may easily iudge what will be the temper of another: for ordinarily, if one part or quarter of the yeare be cleare, faire weather and drie, it must needs 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 yeare doe carrie themselues in Heat, Cold, Moisture, and Dryneſſe. Generally, he shall be able to prognosticate of the state of the whole yeare, following the Prognostications of auncient Fathers, as concerning the day whereupon the first day of the Feast of the Natiuitie or New yeares day doth fall. For if it fall vpon the Lords day, the Winter will be mild and cleare, the Spring delightsome, windie, and moist: there shall be peace; Cattell shall be at a good price; all manner of good things shall abound; old things shall die. If it fall vpon a Munday, the Winter shall be indifferent, the Spring in like manner, the Summer windie and thundering in diuers places, the time of Harueſt temperate: Wine shall abound, but not Honey; 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 Summer windie and moist; Autumne verie inconstant: Women shall die: there will be great danger to such as are vpon the Sea: vprores will happen betweene the people and their Superiors: some Fruits will be deare. If it fall vpon a Wednesday, Winter will be verie sharpe; the Spring verie bad; a good Summer, and a cold and moist Harueſt: Wine, Corne, and Fruits will abound, if they be not spoyled by men of Warre: young 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; Summer good and Rainie; Autumne moist: Wine, Corne, and Fruits will 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, Summer 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 eyes: and there will some tumults and vprores be made. If it fall vpon a Saturday, the Winter will be darke, cloudie, and sharpe; the Spring somewhat windie; the Summer 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 spoyles by wilfull fires will be committed: and Warres will raigne. *The heat of Summer.*

In like manner, according to the disposition of the Sunne and the twelue dayes of the Feast of the Natiuitie, he shall be able to fore-tell the inclinations of yeares: for if the Sunne be altogether beautifull and cleare vpon Christs day, the yeare will be good and peaceable: if vpon the second day, Gold and Wheat will fall of their former value and price: if vpon the third day, Churchmen will fall at variance: if vpon the fourth day, young folke will haue troubles: if vpon the fifth day, all goods will encrease: if vpon the sixt day, Gardens will proue fruitfull: if vpon the seuenth 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 heauinesse of Times: if vpon the eleuenth, great foggie Mists and Mortalitie: if vpon the twelfth, Vprores and Warfare. Wherefore, if the Sunne shine in those twelue dayes, and that continually, all these things will come to passe.

He shall likewise prognosticate and fore-know the disposition of the whole yeare by the disposition of S. *Paules* day, which is the twentie fifth of Ianuarie: for if this day be faire, cleare, and smiling, it promiseth great aboundance of the fruits of the Earth: if vpon this day there be any Mists, 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 be Warres and Seditions among the people.

The knowledge of the disposition of euerie moneth.

He shall know how euerie moneth in the yeare will be enclined, by obseruing the inclination of the day of the Natiuitie, and of the Festiuall dayes 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 moneths will carrie themselues, and answere sutably to the other of the twelue Festiuall dayes.

A forward or a backward yeare.

He shall be carefull to foresee whether the yeare will fall out forward or backward: if after Vintage there fall Raine, especially before the end of the moneth of October, the yeare will proue forward: if it raine about the end of October, it will proue indifferent: but if it begin to raine shortly after in Nouember, the yeare will proue backward; and then it will behoue the good Farmer to sow in greater quantitie, for that before the mid time much of the Corne doth rot and spoyle in the Earth.

A good or bad yeare.

He shall not be ignorant of the tokens fore-shewing whether it will be a good or a bad yeare: and proportionably to this, he shall learne to vnderstand how Harueſt hath beene gathered round 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 been 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 proue deere, and that not onely for the maintenance of his Familie and his Seed, but also to the end he may take his best time and place to sell his owne for his most profit.

Signes foretokening fruitfulnesse.

He shall know a fruitfull and fertile yeare, if he see in the Oke apples, commonly called Gals, a Flie engendred 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 and Flouds 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 fruits, than with leaues: if the Mastlicke tree doe bring forth his fruit well liking and fed: if the wild Onion, or Sea-Onion, called Squilla, cast forth a faire and great flower, which withereth not so speedily.

A barren yeare.

On the contrarie, he shall feare a barren yeare, when he shall see that the Nut of the Gall shall bring forth a Spider: if any Comet appeare in the Firmament: if the Spring and Summer be too moist: if the Earth and Aire be full of Spiders, Wormes, Woodseere, and other such like Vermine: if the Walnut tree haue moe leaues than Nuts: if the Deaw and Frost come in vnseasonable times: if Birds in great flockes

doe

doe leaue and forſake the Iſlands and Woods, and betake themſelues to the plaine Fields, 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 manner, when the Seed which is ſowne is either a leane, a light, or a halfe rotten Corne.

He ſhall know whether Corne will be deare or cheape for the preſent yeare, and in which of the moneths thereof. Let him chuſe 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 command the partie to put one of theſe graines of Corne vpon the Harth, made verie cleane and hot: then hee ſhall marke if the ſaid Graine doe leape or lye ſtill: if it leape a little, then Corne ſhall be reaſonably cheape; but if it leape verie much, it ſhall be verie cheape: if it leape toward the Fire more or leſſe, Corne ſhall be more or leſſe deare: if it lye 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 moneths 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 likelyhood may enſue. But the moſt certaine and ſure token is, if at the end of the Spring, or during the Summer, it raine ordinarily, and that in great aboundance, and accompanied with great and vehement heat, without any Wind at all: or if the Southerne Wind blow: or that as yet there haue not fallen any Raine at all: if the Aire be full of Fogges and Miſts: if the Sunne endure any Eclipſe: or if there be ſeene in the Aire any Comets or fierie flames: if the Trees doe ſeeme to flame and burne: if that the time of Harueſt and Winter be verie foggie, and yet notwithſtanding rainie: if Bread, ſet abroad in the open Aire, doe in the night time draw 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 Walls be full of Sowes and ſuch other like Vermine: if vpon the way a man cannot but meet with Wormes, Liſards, Serpents, and Moules, crept out of their holes and lurking places: if Birds fall dead out of the Aire: if in the Nut of a Gall be found a Spider: if young and old folke be troubled with the Pocks and Meaſels: if Women with child be brought in bed before their time: if in Summer, 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, do bring forth and yeeld flowers in the beginning of Autumne.

Tokens foreſhewing Corne to be good cheape or deare

Signes foretokening a ſickly or ſound yeare.

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 mind 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.

Chap. IX.

That the Farmer must haue the knowledge of the Motions, as well of the Moone as of the Sunne, and of the power and operations of them both in matters of Husbandrie.

The Sunne and the Moone great Lights.

NOtwithstanding, that the consideration and obseruation of the Motions, Faculties, and Effects of the Starres, and chiefely 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, doth appertaine rather vnto some excellent Astrologian, than to a simple Husbandman: notwithstanding, for as much as the greatest part of matters of Husbandrie, as Beasts, Plants, Trees, and Hearbes doe take their generation, nourishment, growth, and perfect consummation, by the liuely inspiration, action, casting forth of Beames, and wonderfull mouings of these two Organes and principall Instruments of all the World; it is very expedient that the Farmer and Gouernor 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. 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 cœlestiall Bodies, doth worke her effect in like manner vpon vs as concerning our bodies as well as vpon the rest of earthly things) it is most certaine, that in lesse than in one moneth it runneth all that course and way which the Sunne is in running all the yeare 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 reflections 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. Hereupon it commeth, that we say, that the Moone encreaseth or decreaseth: not that indeed it doth encrease or decrease (saue then when it is in his eclipse) being continually enlightned by the Sunne; but this his brightnesse onely which it casteth and spreadeth vpon the whole face of the Earth, doth only encrease and decrease. And this shining brightnesse, according as it is longer or lesser time, hath likewise more or lesse force to moue the humors of naturall things to worke their effects. For by how much the more that this light encreaseth, by so much the more doth the moisture thereof spread and communicate it selfe aboundantly 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.

Of the Moone.

The cause of the growth and wane of the Moone.

To slaughter Cattell in the new of the Moone.

Wherefore, to speake first of Field-beasts, the well-aduised Farmer shall not kill at any time whatsoeuer his Porkes, Muttons, Beeues, Kine, or other Beasts, of the flesh whereof he would make his household prouision for the sustenance of his Familie, 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 readie withall: neither ought any man to maruaile or stand astonished at this, if hee consider well, that a Sawsage, or other such like kind of meat, doth grow lesse by a quarter when they are boyled. Neither shall he make account of or buy any Horse-flesh, or other, which was foled or brought forth in the decrease and old age of the Moone, for that they are more weake and faint than the rest: moreouer, they come to no growth, neither is their flesh of sufficient weight 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

couered with ſhells or thicke ſcales, as Crayfiſhes, Crabs, Oyſters, Muſcles, and ſuch like are found verie much impaired in their ſubſtance and leane in the old age and wane of the Moone: and contrariwiſe, groſſe, fat, and full, when ſhe is in her force, and full. The Faulkoner ſhall chuſe rather the full Moone to flye in than the wane, for that Hawkes, and all Birds of the prey, are a great deale more nimble, ſharpe, and catching about the full Moone than in any other time. The Horſe and Beaſt ſubiect to any maladie of the eyes, is better at eaſe in the decreaſe than in the encreaſe 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 need, in the full of the Moone, not in the declining. He ſhall geld his Bore-Pigs, Rammes, Bull-Calues, or Bulkins, and male-Goats, when the Moone decreaſeth. He ſhall ſet Egges vnder Hennes or other Fowle in the new of the Moone, and principally in the firſt quarter.

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 lop Wood for his fuell: but contrariwiſe, ſuch as he minds to keepe for to build withall, when the Moone decreaſeth, being ſure that all matter (be it to build Houſe, Preſſes, Bridges, and other things) being cut downe in the decreaſe of the Moone, laſteth a long time, and is found maruailous good, and yet better when it is cut downe rather at euening than in the morning: which thing may alſo be applyed to hewen ſtone and milſtones, when they be cut out of their Quarries and Pits. He ſhall plant his Vine in the encreaſe of the Moone, when it is foure or fiue daies old: He ſhall cut the leane Vines, and ſuch as are planted in a bad ſoyle, in the encreaſe likewiſe of the Moone: but thoſe which are more fat, in the going away of the Moone, ſeeing that thus they will bring forth more Grapes than if they were cut in the encreaſe, in as much as then the Moone ſtaying vpon them to ſoften them and make them fat, cannot chuſe but cauſe aboundance of Cluſters and Leaues: but cutting them the Moone being old, the Wood becommeth bound, and applyeth it ſelfe onely to bring forth great ſtore of fruit. He ſhall cleanſe, prune, & cut at the foot Fruit-trees toward the later 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.

Fruit-trees and others.

To cleanſe trees

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 and longer kept, which otherwiſe would be in danger to ſowre and rot in the moneth of March following, being the time that men are wont to cut their Vines. And which is more, he ſhall gather and carrie into his houſe whatſoeuer he would haue to endure and laſt long, at ſuch time as the Moone ſhall decreaſe. Hee ſhall ſow his Corne, as Wheat and other Graine; he ſhall weed, fanne, ſearce, and gather together his Corne vnder a locke; he ſhall grind his Corne, the better to keepe it in flowre, in the end and old of the Moone: It is verie true, that the bread encreaſeth & profiteth more, if it be ground, the Moone encreaſing and being new. He ſhall mow 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 gather fruits, Grapes.

To ſow Corne.

To winnow or fanne, to ſearce and lay vp Corne vnder locke.

To grind Corne.

As concerning Hearbes, he ſhall ſow them the Moone being new, and gather them whiles the Moone encreaſeth in her light, as being then of farre greater force than in the waſt and wane. At the ſame time he ſhall gather Cucumbers, Gourds, Melons, Citruls, Pompions, and all Roots 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 than in the augmenting or full of the Moone, during which time they haue no ſuch force of greatneſſe of bodie: notwithſtanding, if they be ſowne or tranſplanted in the wane of the Moone, and towards the later end, they are a great deale more ſtrong, ſharpe, and biting, than if it were in the growth or full of the Moone.

Onions ſowne in the wane.

Fur-

To mow Medowes.
To dung them.

Furthermore, he shall cut downe his Medowes, for the feeding of his Cattell, when the Moone is new: hee shall dung his grounds and make them fat in the encrease of the same, in as much as the Moone giueth no lesse power vnto the dung to soften the Earth, than it doth to Trees and Seeds, to bud, grow, and multiplie euerie one in his place: he shall water his Medowes in the decrease of the Moone.

And he shall not be content to know what force and efficacie euerie quarter of the Moone hath vpon Beasts, Trees, Plants, Hearbes, Fruits, and other things contained in this inferior World; but shall also be carefull to obserue what power euerie day of the Moone hath, not onely vpon Beasts and Plants, but also in the disposition and gouerning of Man, to make his vse thereof in the time of necessitie, and in time and place, as occasion offereth: following such infallible Obseruations as haue beene long continued, and which our Fathers neuer attayned vnto; and they be such.

In the first day of the Moone, *Adam* was created: if any man fall sicke vpon this day, the sicknesse will be long, but the partie shall recouer: the dreames which he dreameth in the night shall be found ioyfull: the child 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 encrease 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 sow 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 dreame in the night time, he must not respect it, for it shall come to no effect. The child borne vpon this day thriueth and groweth iollily.

In the third day *Cain* was borne: Vpon this day no man is to enterprise any worke, either in Gardening or Planting, except that which he purposeth to lose: who so falleth sicke, shall vndergoe and beare it with great paine and griefe vnto the end; 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 child then borne shall be of long life.

In the fourth day *Abel* was borne: This is a good day to begin a worke in, to make Mills in, and to goe vpon the Water. A Fugitiue or Run-away, as also a lost or strayed 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 contrarie it be euill, it shall not come to passe: the child borne this day shall proue a Traytor.

In the fifth day *Lamech* was borne: If vpon this day any partie haue committed any thing by hap or accident, and flye for the same, he doth but lose his labour by such flight, for he shall by and by be punished aliue or dead. Robberie committed this day, shall not be found out: who so shall fall sicke vpon this day, shall neuer rise againe: the dreames dreamed shall be doubtfull: the child borne shall die verie quickly.

In the sixt day *Ebron* was borne: It is good vpon this day to send children to Schoole, and to goe a Hunting: Theft or Robberie 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 child that shall be borne, shall be of long life.

In the seuenth 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 Malefactor or Theefe doth flye, both he and the theft committed shall be quickly found out; the sick soone healed; the dreames certaine and true; good to buy Swine, and to make food of all manner of Beasts: the child borne shall be of long life.

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The eight day *Methusalem* was borne: It is good for Trauellers: the Patient taken with a diſeaſe, ſhall languiſh a long time: the dreames therefore ſhall proue true: the child ſhall not ſhew any good ſignes in the iudgement of Phyſiognomie.

In the ninth day *Nabuchodonoſor* was borne: This ſaid 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 dayes, and therefore ſhall not languiſh or beare it mournefully: the child 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 fall into tribulation and aduerſitie, ſhall not need to feare, for it ſhall not long endure: likewiſe, he that falleth ſicke ſhall die within tenne dayes, if he be not well ſuccoured: the child borne vpon this day ſhall trauaile many farre Coaſts and Countries.

The eleuenth day *Samuel* 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 dayes: the partie lying downe ſicke vpon his bed, ſhall there continue a long time, and yet notwithſtanding he ſhall eſcape: the child 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 dayes: the dreames thereof ſhall be true, according to their ſignification: the child borne this day ſhall be altogether hypocritically enclined.

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 accomplifhed within nine dayes: the child borne that day ſhall liue long.

In the foureteenth day God bleſſed *Noe* and his workes: he that falleth ſicke that day, ſhall amend againe quickly: the dreames thereof will be doubtfull: the child 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 ſickneſſe whereinto he fell that day: the dreames thereof will be certaine, and accompliſhed within tenne dayes: the child borne thereon ſhall not be ſubiect to women.

In the ſixteenth day *Iacob* was borne: For this cauſe it maketh good to buy and tame Horſes, Oxen, and other Cattell: the ſicke ſhall be in great danger of death, if he change not his Ayre or Houſe: dreames ſhall come to paſſe: the child ſhall not liue long.

In the ſeuenteenth day Sodome and Gomorrha was deſtroyed: It is ill to attempt and doe any thing: Phyſicke taken will doe no good vnto the Patient: the dreames will be verified within three dayes: the child will not be proſperous in all things.

In the eighteenth day *Iſaac* was borne: It is good to be at leiſure, and to goe about buſineſſe: the ſicke ſhall be in danger of death: the dreame ſhall be true: the child ſhall not trauaile farre, but he ſhall get great goods.

In the nineteenth day King *Pharoah* was borne: This day is dangerous, wherefore it will be good to auoid companie and drunkards, and to liue peaceably without doing any thing: the diſeaſed will ſoone recouer: the dreame will proue true: the child will not be malicious, or a mocker.

In the twentieth day the Prophet *Ionas* was borne: This is a good day for the doing of all things: the diſeaſe will continue long: the dreame true and apparent: the child which ſhall be borne will be malicious and a mocker.

In the one and twentieth day was borne King *Saul*: It is good to reioyce and cheare vp ones ſelfe in faire and honeſt Apparrell: good to buy prouiſion for ſuſtenance: the theft committed will be found out: the taken ſicke in great danger of his diſeaſe: the dreame vaine and vnprofitable: the child borne, ſubiect to endure great trauaile.

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In the two and twentieth *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 sicknesse that hee shall take this day: the dreame shall be true: the child borne shall be good and honest.

In the three and twentieth 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 child borne, a dissembling wretch and ill fauoured.

In the foure and twentieth day *Iaphet* was borne: It is an indifferent day, that is to say, neither good nor bad: the sicknesse will hold long, but the patient will recouer: the dreame will be of no effect: the child that is borne will be mild and courteous, and will loue to make great cheare.

In the fiue and twentieth Mortalitie entred into Egypt: The sicke will be in danger of death the sixt day after the beginning of the sicknesse: the child that is borne therein shall be subiect vnto many dangers, perils, and aduersities.

In the six and twentieth *Moises* diuided 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 proue true: the child borne will not be any man of great prosperitie or pleasure, that is to say, neither poore nor rich.

In the seuen and twentieth it is good to take paines in all manner of businesses: the sicknesse will be variable: the dreames will be doubtfull: the child borne will be mild and louely.

In the eight and twentieth all good things will be good to be done: the sick shall be recouered of his sicknesse: the child borne shall be slouthfull and negligent.

In the nine and twentieth 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 verie certaine: the sicke will turne sound: the child borne will liue and keepe societie in peaceable manner among men.

The thirtieth 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, he will recouer: the dreames will be turned into ioy within the fift day: the child 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 forth of his cœlestiall beames, giueth vnto earthly bodies their forme and vegetatiue life, accompanied with certaine powers and vertues, so farre forth 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 foure quarters of the yeare, which is that time wherein the Sunne dispatcheth his whole course. Wherefore the wise and prudent Husbandman shall giue heed to the foure quarters of the yeare, which are the Spring, Summer, Autumne, and Winter, to the end, that according to the motion and power of the Sunne in these foure quarters, hee handle, manage, and gouerne all his affaires of Husbandrie. And this is the thing that wee will more particularly handle at large in the Chapter following, by the workes that the Husbandman must doe in euerie seuerall moneth of the yeare.

Chap. X.

The particular Workes that a Husbandman must be carefull to doe euerie Moneth in the yeare.

FVrthermore, to the end that his people may not liue idle, and that they may not loose one small minute of time; which being imployed 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 ends what things is to be done euerie moneth and time of the yeare. Yet thus euer to gouerne his memorie, that these labours following being more naturall to the Kingdome of France than to any of her neighbours, they shall, for their satisfaction, because the Booke is now intended generall, returne to the sixt Chapter, and there behold the conuenient labours fit for colder Countries, as is the Island of great Britaine, Ireland, and the Low Countries.

In the moneth of Ianuarie, chiefely toward the end, hee shall cut downe his Wood which hee appointeth for Building, or other Worke, when the Moone is vnder the Earth: for the brightnesse of the Moone maketh the Wood more tender, and the Wood which shall be cut at such time will endure 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, Plum-trees, Apricock-trees, Almond-trees, and Cherry-trees. He shall digge the Earth for the casting in of Nuts, Almonds, and the kernels of Apricockes, Peaches, and Plums, and such others, in grounds that are cold and moist, in the two first quarters of the Moone. Hee shall cut his Vine in faire and beautifull Weather. Hee shall plough the grounds that are drie, light, white, leane, sandie, full of roots and great hearbes, and which were not eared in October. Hee shall giue the second eare vnto those his grounds that are most barren, and scatter vpon them the chaffe of Beanes, Wheat, or Barley. Hee shall cut downe the boughes of the Willowes for Railes for Vines and Stakes for Hedges. Hee shall prepare props and thicke square Laths to vnderset his Vines. Hee shall cut and take away the superfluous boughes of the Trees, the Moone decreasing. Hee shall turne the vppermost of all the dung made since S. *Martins* day vndermost, and contrarily, to the end it may be well rotten when hee shall carrie it out to spread it vpon his Field and Medow. Hee shall furnish afresh or make new his Carts, Tumbrels, Ploughes, and other his Instruments necessarie for his Husbandrie. Hee shall make prouisions of verie sharpe yron tooles to cut and cleanse his Trees and Vines. Aboue all things, let them beware of Sowing, because the Earth as then is too open, heauie, full of vapours, and like vnto Wooll not well carded. *Ianuarie.*

In Februarie in the new Moone he shall transplant Vines of two or three yeare, which shall now alreadie haue taken good root, but he shall not touch them of one yeare, which will not be remoued because of the small strength which they haue as yet got. He shall carrie dung out into his Corne-fields, Vineyards, Medowes, and Gardens. Hee shall cast trenches for the planting of new Vines. Hee shall cut the roots of the Vines, and set square Laths or Props for the defending of them. Hee shall prune and cleanse the Trees of whatsoeuer is superfluous: Hee shall cleanse them from wormes, filthinesse, and worme-eatings, canker, and rottennesse, which are to be found in the drie leaues. Hee shall make readie his Garden-grounds to sow and set therein all manner of hearbes. Hee shall giue the Earth her second earing for the receiuing of Beanes, Barley, Oates, Hempe, Millet, and such other Seed 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, Pome- *Februarie.*

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granate trees, Quince trees, Figge trees, Poplar trees, Willow trees, Elme trees, Osiers, and others, as well Fruit Trees as wild ones, which haue roots. Hee shall cleanse the Doue-house, Henne-house, and place where the Peacocks and Geese make their haunt, because that these Cattell in the end of this moneth begin to be hot, and to tread. Hee shall ouer-looke his Warren, to stoare it anew, and to handsome vp the Earths. Hee shall buy Bees: he shall make cleane their Hiues verie carefully, and kill their Kings. Hee shall buy Faulcons, Sparrow-hawkes, and other Birds of the prey, which he shall put into Mue in the end of this moneth.

March. In March, euen in the beginning of it, he shall sow Lyne, Woad (if it were not sowne in Februarie) Oates, Barley, Millet, Pannick, Hempe, Peason, Lentils, Tare euerlasting, Lupines, small kinds of Corne, as the Fetch, Fasels, and other such like bitter kinds of small Pulse. He shall giue a second earder vnto new plowed fallowes, which are now by this time well amended and dunged, so as that he may make them readie to sow. He shall weed his Corne: he shall get Grifts to graft, when the sap beginneth to climbe the Trees, and before that they put forth any buds. He shall plant these Fruits, great Nuts, Chesnuts, Almonds, small Nuts, Filberds, and the stones of Oliues and Apricocks, and diuers other Fruits. He shall sow diuers Nurseries with the kernels of Apples, Peares, Mulberries, and such other like Fruits. He shall plant such Hearbes as are set low and close by the ground, as the slips of Artichokes, Thistles necessarie for vse, Sage, Lauander, Rosemarie, Strawberrie, Gooseberrie-bush, Roses, Lillies, Citruls, Cucumers, Melons and Pompions. He shall trim vp his Gardens as well for the Kitchin or commoditie, as that which is drawne into quarters, or for pleasure, and shall sow therein whatsoeuer necessarie Seeds. He shall cut and vncouer the roots of Vines and Fruit-trees, to the end they may bring forth more fruit. He shall put dung to the roots of the Trees: he shall gather vp the loppings to make Fuell of.

Aprill. 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 remoue the earth from foot to foot, taking from them such roots as are put forth towards the vppermost part of the earth, as also all superfluous boughes, not suffering any one branch to exceed another either in breadth or height. He shall plant, if he haue not alreadie done it, Oliue trees, Pomegranate trees, Citron trees, and Mulberrie trees, and shall prune them carefully. He shall graft the Figge 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 feed his Pigeons, because at this time they find 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 Honey-flies, and shall kill the Butterflies, which abound when Mallowes are in flower.

May. In May hee shall water the Trees that are newly planted: hee shall sheare his Sheepe, fill vp his Wines, gather great store of Butter, and make much Cheese, geld his Calues, and begin to looke to his Bees and Silkewormes, of which he shall gather together a great number. He shall weed his Corne, cast the earth off his Vines the second time, vncouering and freeing their roots from the earth about them, to the end that the heat may not hurt them: he shall 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.

June. In Iune hee shall make readie his Threshing floore, and cause it to be thorowly cleansed of straw, durt, and dust: he shall cut downe his Medowes, mow his Barley, crop his Vines, thresh his Corne to sow in Seed time.

July. In Iuly hee shall mow his Wheat and other graine vsed to make pottage of: hee shall graft in the bud: hee shall gather from Apple-trees and Peare-trees the faultie Apples and Peares, and those which doe ouer-charge the Trees: he shall digge his Vines againe the second time, and plucke vp from them the Grasse called Dogstooth: he shall lay eeuen and fill vp the earth where it is any where cleft or broken, to

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the end that the Sunne may not burne before hand the Vine: He ſhall cut downe ſuch Wood as ſhall ſerue for his Fuell all the yeare long.

In Auguſt he ſhall pull his Line and Hempe; gather ſuch fruits from off the Trees as he meaneth to preſerue. Hee ſhall take away the leaues from about ſuch Grapes as are ſlow and backward, to the end they may receiue and reape the more heat from the Sunne. He ſhall make his Veriuice. He ſhall digge the Earth to make Wells, or to find the heads of Fountaines, if he haue need. He ſhall thinke vpon making readie his Wine veſſels and other things neceſſarie for his Vintage. *Auguſt.*

In September he ſhall giue his land that commeth to be tilled againe, after it hath beene fallow, the laſt earder. He ſhall ſow his Wheat, Maſling, Rye, and ſuch like Corne. Hee ſhall gather his Vintage: beat downe Nuts: cut downe late Medow grounds, to haue the after-Crop. Hee ſhall gather ſtubble for the thatching of his houſe, and for fuell to the Ouen all the yeare. He ſhall cut away the branches of Madder, and gather the Seed to ſow in the beginning of the March following. Hee ſhall gather the leaues of Woad, and order them in ſuch ſort, as that they may be made vp into balls, and he ſhall cauſe them to be dried in the Sunne, or at a fire not verie hot. He ſhall cut downe Rice and Millet. *September.*

In October he ſhall make his Wines, and turne them into Veſſels. He ſhall beſtow his Orenge, Citron, and Pomegranate Trees in ſome couered place, to auoid the danger of the eminent Cold. He ſhall make his Honey and Waxe, and driue the old Bees. *October.*

In Nouember he ſhall couch his Wines in his Cellar. He ſhall gather Acornes to feed Swine. Hee 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 verie well, that the Froſt may not periſh them. Hee ſhall make Oyles. Hee ſhall make Hiues for Bees, Panniers, Dung-pots, and Baskets of Oſier. Hee ſhall cut Willowes for to make Frames to beare vp Vines, and ſhall bind the Vines, and draw the climbing Poles from the Vines. *Nouember.*

In December hee ſhall oftentimes viſite his Fields, thereby to let out the water which may ſtand in them after great Raine. Hee ſhall cauſe water to runne through the old Medowes, and dung them if need be. Hee ſhall make prouiſion of Dung to manure his fallowes that are broken vp and tilled. Hee ſhall couer with dung the rootes of the Trees and Hearbes which he intendeth to keepe vnto the Spring. Hee ſhall cut off the boughes and heads of Willowes, Poplars, Saplings, and other Trees, to the end that their boughes may more ſpeedily put forth and grow ſo ſoone as Winter ſhall be paſt. Hee ſhall cut downe his Wood as well to build withall as to make his fire with. Hee ſhall make readie his Nets to catch Birds, and to beſet the Hares, when as the Fields ſhall be ycie, or couered with Snow, or ouerflowne with Waters in ſuch ſort, as that a man can doe no worke in them. Hee ſhall alſo occupie himſelfe (as long as he pleaſeth) in making a thouſand pretie Inſtruments and neceſſarie things of Wood, as are Platters, Trenchers, Spindles, Bathing-Tubs, Diſhes, and other things requiſite for houſehold 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 ſhall alſo make prouiſion of Spades, Shouels, Pickaxes, Peeles, Hatchets, Wedges, Sawes, and other furniture fit for a Countrie houſe ſtore. *December.*

Chap. XI.

The condition and ſtate of a Huſwife.

I Doe not find the ſtate or place of a Huſwife or Dairie-woman to be of leſſe care and diligence than the office of her Husband, vnderſtood alwayes, that the woman is acquited of Field matters, in as much as ſhee is tyed to matters within the Houſe and baſe Court (the Horſes excepted) as the husband is tyed to doe what concerneth him, euen all the buſineſſes of the Field. Likewiſe, according to our cuſtome of France, Countrie women looke vnto the things neceſſarie and requiſite about Kine, Calues, Hogges, Pigges, Pigeons, Geeſe, Duckes, Peacockes, Hennes, Feſants, and other ſorts of Beaſts, as well for the feeding of them as for the milking of them: making of Butter and Cheeſe: and the keeping of Lard to dreſſe the labouring men their victuals withall. 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 familie, of ordering of the Kitchin Garden, and keeping of the Fruits, Hearbes, Rootes, and Seeds: 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 hyring and paying of ſeruants wages: But the ſurpluſage to be employed and layed out in pettie matters, as in Linnens, Clothes for the houſehold, and all neceſſaries of houſehold furniture, that of a certainetie belongeth vnto the woman. I meane alſo that ſhe muſt be ſuch a one as is obedient vnto God and 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, mild vnto ſuch as are vnder her when there is need, and ſharpe and ſeuere when occaſion requireth: not contentious, full of words, toyiſh, tatling; nor drowſie-headed. Let her diſpoſe of her ſtuffe and implements vnder her hand in ſuch ſort, as that euerie 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 alwayes haue her eye vpon her maids: and let her be alwayes firſt at worke, and laſt from it, the firſt vp, and the laſt in bed. Let her not ſuffer to be loſt or purloyned, 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 value of the leaſt crum of Bread denyed, or vnwillingly graunted or giuen vnto him or his, may looſe the quantitie of a whole Loafe afterward. Let her not trouble her braine with the reports & ſpeeches of others, but let her acquaint her husband with them in good ſort and manner. Let her gratifie her neighbors willingly, neuer attempting to inueagle or draw away any of their men ſeruants or maids from them: neither let her keepe companie with them, except when ſhee may doe them good, or helpe them, or when ſhe maketh ſome marriage, or aſſemblies of great companie. Let her not ſuffer her daughters to gad and wander abroad vpon the Sabbath, except they be in ſuch companie as is faithfull, or that ſhe her ſelfe be preſent with them. Let her compell her ſonnes to be formoſt 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, Danewort, the refuſe of preſſed things, and other vnprofitable hearbes, to be loſt, for in winter they being burnt into aſhes, will affoord prouiſion to lay Bucks 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 young ones, as well of Birds as of other Beaſts. Let her be skilfull in naturall Phyſicke, for the benefite of her owne folke

and

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 alwayes, when there is not verie vrgent occasion and great necessitie, is not for the profit of the house. Let her keepe all them of her house in friendly good will one toward another, not suffering them to beare malice one against another. Let her gouerne her Bread so well, as that no one be suffered to vse it otherwise than 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 shee presseth, affoording them some little 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 shee shall acquaint her selfe withall for the succour of her folke in their sicknesses, may be those, or such as these are, which I shall set downe by writing, in manner of a Countrie Dispensatorie, leauing the other more exquisite Remedies to bee vsed by the professed Physitions of the great Townes and Cities.

To vse Bread temperately.

Prouision for Drinke.

Chap. XII.

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

First, for the Plague shee shall make a distilled water of the hearbe called *Regina prati*, after that shee hath caused the same to be steept in white Wine: or else shee shall cause to lye to steepe in the iuice of Citrons a peece of Gold, or the powder or leaues thereof, for the space of 24 houres, and afterward mixe that iuice with white Wine, and the powder or decoction of the root of Angelica, and so giue it to drinke to the infected. Or else let her take two old Walnuts, one Figge, tenne leaues of Rue, one graine of Salt, pownd 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 pownd them altogether with white Wine and a little Aqua vitæ, afterward let her straine them out, and giue the partie to drinke thereof a good draught. The water of Naphe drunke to the quantitie of six ounces, causeth the malignitie of the Plague to breake forth by Sweats: the iuice of Marigolds, Scabious, and of the flowers of Betonie doe the like. Apply vpon the swelling a loafe very hot, or a Henne cut through the middest, or a white Onion, made hollow on the root side, and filled vp againe with good strong Treacle or Mithridate, softened 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 pownd it well in a Mortar, and apply it: or else, if it be strained, the iuice drunke, and the drossie part applyed to the place, you shall perceiue the like effect.

The Plague.

Naphe.

For a continuall Feauer (which is otherwise called the hot Disease) shee shall apply vpon either wrest of both the armes, the iuice of the stinging Nettle, mixed with the oyntment of Poplar buds: or two springs of new-layed Egges, Soot taken off from the Hub of the Chimney, and well beaten together, and mixt with salt and strong vineger, let her bind the whole vnto the parties wrests with a Linnen Cloth: or else in place of this shee shall take away the heart of an Onion, and fill it with Mithridate, and apply it fast bound vpon the wrest of the right arme: or else shee shall take the heart of a water-Frog, and apply it vpon the heart or backe bone of the sicke partie: or else she shall apply vpon the region of the Liuer, or vnto the soles of the feet, quicke Tenches. Many for this cause doe stampe the small Sorrell, and make a drinke

A continuall Feauer.

drinke for the great heat thereof, as also make a Cataplasme thereof to apply to the wrests of the sicke partie. Others doe the like with the water which they straine out of a great Citrull. Others cause to steepe in water the whole seed of Flea-wort for the space of a night, and minister of this water, with a little Sugar, to the sicke partie to drinke.

A Quartane Ague.

For a Quartane Ague, take of small Sage, or for want of it, the other Hysope, Wormewood, Parsley, Mints, Mugwort, white spotted Trefoile, stampe them all together with the spring of an Egge, and the grossest Soot that you shall find cleauing to the Chimney, and of the strongest vineger that may be found; infuse them altogether, and make thereof Cataplasmes fit to be applyed to the wrests of the hands. To the same purpose steepe the crummes of two white Loaues, as they come from the Ouen, in a quart of Vineger, afterward distill the same by a Limbecke, and giue thereof a small draught to the sicke partie to drinke, about some two houres before the fit come. Some hold it also for a singular remedie to take the iuice of the female white Mulleine, before it put forth his stalke, pressed or drawne forth 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 boyled in white Wine; the decoction of Calamint, Peniryall, Organie, Burrage, Buglosse, Langue-de-bœuf; the rind of the root of Tamariske, Ash-tree, Betonie, Tyme, Agrimonie, and the roots of Sperage, all boyled in white Wine; the iuice of Wormewood and Rue powred from their setlings, and drunke before the fit; the iuice of Plantaine drunke with honied water. Some doe make great account of the powder of the root of Asarum (otherwise called Cabaret) dryed in the Sunne, or in the Ouen, and taken in the weight of a French crowne, with white Wine, halfe a quarter of an houre before the fit. Furthermore, the Liniment made with Mithridate, or the oyle of Scorpions, applyed to the ridge of the backes, soles of the feet, palmes of the hands, brow, and temples, some small time before the fit. The verie same vertue hath the oyles of Bayes mixed with Aqua vitæ. Some townesmen doe vse this superstitious rite against such manner of agues: that is to say, they eat nine dayes together, being fasting, the leaues of Sage; the first day nine, the second eight, and so consequently, they diminish euerie day a leafe vntill the last of the said nine dayes: and the confident persuasion that they haue of this medicine doth cure them. Some find it verie singular in a Quartane Ague, after purging, to drinke white wine, wherein there hath beene Sage steeped all night: if you eat before the fit a head of Garlicke pilled, you shall scape the fit of shiuering cold: if you drinke one or two ounces of the iuices of the root of Elder stamped and strained some small time before the fit, and take the same againe two or three times, you shall lose your ague. The distilled water of the roots of Sea-Holly: or else take a dramme of Myrrhe in powder, and drinke it with Malmesey an houre before the fit. The distilled water or decoction of *Carduus Benedictus*, and taken before the fit: Pills made of Myrrhe and of Treacle as big as a cich pease taken an houre before the fit.

Thirst.

For the Thirst of an Ague, let him roll 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 Snayle stone, or a piece of Crystall oftentimes dipt in water, or the leaues of Purslane or of Houseleeke, or the husked seeds of Cucumbers.

A Tertian Ague.

For a Tertian Ague, steepe in white Wine the bruised root of hearbe Patience for the space of three or foure houres, afterward straine it, and reserue about a pretie draught to giue the sicke to drinke an houre 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 pretie draught of the iuice of Plantaine, or of Purslane, 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 houres before the fit. The most soueraigne remedie that some men doe find for it, is to drinke fasting, fiue houres before the fit, two ounces

of

of the iuice of Pomegranats, and presently after to lay to the wrists, temples, and soles of the feet small pills, of the bignesse of a Pease, made of an ounce of the oyntment of Populeon, and two drammes of Spiders webs, and there to leaue them, vntill such time as that the houre and feare of the fit be past: or else a Cataplasme made of Sage, Rue, Greeke Nettle, gathered before Sunne-rise, of each a handfull, Salt and Soot the quantitie of a Walnut, it being all stamped with vineger, and applyed to the pulses an houre before the fit. Some doe greatly approue of a Liniment of Earthwormes boyled 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 and 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 cich Pease, and the middle rinde of Elder: or to steepe in white wine the roots of Danewort, and to drinke a small draught thereof an houre before the fit; but after that hee must take heed of sleeping: or let him drinke euerie 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 wee haue set downe for the Quartane Ague.

Headach comming of Heat.

To take away the paine of the Head, comming of great heat, namely such as befalleth Mowers during the Summer time, there must be applyed vpon the browes slices of Gourds, or Linnen Clothes dipped in Rose water, or the iuice of Plantaine, Nightshade, Lettuce, Purcelane, 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 feet and legges: and if in case the paine be so great, as that there is feare that hee should loose his wits, let there be applyed vpon the crowne of his head, browes, and temples, a Cataplasme made of the white of an egge, Bole-armoniacke, Crabbes throughly boyled, and Poppie seed, with the water of Betonie 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 wild Time, Maiden haire, and Roses: or receiue and take the fume of the decoction of Coleworts: or by and by after the head beginneth to be ill, to eat 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 mayst take of the haire of the Beast that hath made thee ill, and drinke off a good glasse of Wine.

Headach proceeding of Colds.

If the Head become sicke of some great Cold, apply and lay to the Head a bag full of Branne, Millet, and rubbed Salt: or of Sage, Marierome, Betonie, Tyme, Annise-seed, Fennell-seed, Bay-berries, and Iuniper-berries, as hot as you can endure them: or else chafe the temples with the iuice of Nightshade, 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 applyed vnto the same place: or rub his browes and all his head ouer with oyle of Roses, Vineger, and Populeon: or with the iuice of Nightshade, oyle of Roses, and Vineger.

Drowsinesse, or heauinesse 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 nosthrils 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 Frontlet with the seed of Poppie, Henbane, Lettuce, and the iuice of Nightshade: or the milke of a woman giuing a girle sucke: or with the leaues of ground yuie, 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 feet 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 good spoonefull of Aqua vitæ well sugred, and let them eat a bit of White bread by and by after; or in stead of Aqua vitæ, let them drinke the Claret water which I will set downe hereafter, or of the water of the root of the wild Vine, or of the powder of the root thereof continually for the space of a yeare.

The Palsie. For the Palsie, rub the place afflicted with the oyle of Foxes, Bayes, and Castoreum, mixing therewith a little Aqua vitæ: vse likewise oftentimes the water of Cinnamon, and of S. Iohns wort; or the conserues of Sage, Rosemarie, Cowslips, Baulme, and Mithridate: make him drie Bathes with the decoction of Lauander, Coastmarie, Danewort, Sage, and Marierome.

The Epilepsie or falling sicknes. To preserue one from the Falling sicknesse, otherwise called S. Iohns disease, it is a soueraigne thing to drinke for the space of nine dayes a little draught of the iuice of the hearbe Paralysis or Cowslips, or of the distilled water of the Linden tree, or of Coriander: or to vse euerie morning, for the space of fortie dayes, a powder made of the seed of Pionie, and Missletoe 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 about his necke the Missletoe of the Oake, or some piece of a mans skull, or of the root or seed of male Pionie, or of the stone that is found in Swallowes neasts: or to weare about his necke, or vpon one of his fingers, some ring, wherein shal be set the bone of the foot of the Oxe called Elam or Alce, and 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 bloud.

Rednesse 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 foure ounces of Peach kernels, two ounces of the husked seedes of Gourds, bruise them and presse them out strongly, to the end they may yeeld their oyle: 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 flower of Lupines, Goats gall, iuice of Limons, and verie white Allome, touch the spotted places with this oyntment: or else make an oyntment with the oyle of bitter Almonds, Honey, Ireos, and Waxe: or else rub your face with the bloud of a Cocke, Henne, 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 roots of the hearbe Patience, presse out about some pound of the iuice thereof, in which you shall dissolue an ounce of Pellitorie powdred, and a scruple of *Viridis æris*, mixe all verie well together, and herewithall you shall daily foment the said disease: Hang about your necke the roots of water Betonie, and the lesser Plantaine. If you cut the foot of a great Witwall or Toad, when the Moone is declining, and beginneth to ioyne it selfe to the Sunne, and that you apply it round about his neck which hath the Kings euill, you shall find it verie soueraigne for the said disease. The dung of a Cow or Oxe heated vnder the ashes betwixt Vine or Colewort leaues, and mingled with Vineger, hath a propertie to bring the swelling to ripenesse. Or else vse this remedie, which is alwayes readie, singular good, and well approued: Take a sufficient quan-

quantitie of Nicotiana, ſtampe it in a verie cleane Mortar, and apply both the iuice and droſſie parts thereof vnto the ſaid tumour together: and doe this nine or tenne times.

The Rheume falling downe vpon the eyes is ſtayed by a Cataplaſme applyed to the browes, made of the muſcillage of ſhell-Snailes, and corporated with the flower of Frankincenſe and Aloes well ſtirred together, vntill that the whole become to the thickneſſe of Honey. *Ill eyes.*

For a weake Sight, take Fennell, Veruaine, Clarey, Rue, Eye-bright, and Roſes, of each a like, and diſtill them all in a Limbecke: of this water diſtilled put three or foure drops in your eyes morning and euening. Alſo the water of young Pies diſtilled in a Furnace is verie good: in like manner the water of rotten Apples, putting two or three drops thereof into them. It is good for the ſame diſeaſe to take the vapour of the decoction of Fennell, Eye-bright, and Rue: to drinke euerie morning a ſmall draught of Eye-bright wine, or to prepare a powder with dried Eye-bright and Sugar, to take thereof euerie morning the weight of a French crowne, two or three houres before meat. There is a ſtone found within the gall of an Oxe, which put into the noſthrils, doth maruellouſly cleare the ſight: ſo doth the wine made of the root of Maiden haire, if it be oft vſed in the morning. *A weake ſight.*

For the paine of the Eyes, it is good to make the decoction of Camomile, Meliſot, and the ſeed of Fennell in water and white Wine, and dipping a foure-fold Linnen Cloth therein, and after wringing it well, to apply the ſame oftentimes to the eye: or elſe to lay vpon it womans milke and the white of an egge well beat together. *Paine in the eyes.*

The redneſſe of the Eyes is amended by the applying of Linnen Clothes or Piegets of Flaxe, moiſtened in the whites of egges well beat together with Roſe or Plantaine water: or elſe boyle a ſowre and ſharpe Apple, take the pulpe thereof, and mix it with Nurce milke; afterward make a little Liniment to be applyed to the red eyelids. In the meane time you may apply to the temples a frontlet made with Prouence Roſes, or conſerue of Roſes, and other aſtringent things, to the end that the rheume falling from the braine may be ſtayed, ſeeing it is the cauſe of ſuch redneſſe. 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 eyes, 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 Baſin, and afterward vpon the ſuddain doe caſt it out of the Baſin, they couer the Baſin with a cleane Linnen Cloth, and let it ſtand ſo couered foure and twentie houres, they find 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 Violl well ſtopped, and drop thereof into their eyes euening and morning, holding them wide open. Many likewiſe there be which content themſelues with Tuthia prepared. *Redneſſe in the eye.*

To take away the filthineſſe or gumminesſe of the eyes, touch them and rub them round about with a Saphire dipt in cold water. *Filth in the eye.*

To preuent that the eye doe not continue blacke or red after a blow, there muſt by and by be dropt into the eye the bloud of the wing of a Pigeon or Turtle doue. *A blacke and blew eye.*

To take away red ſpots or blemiſhes of the eye, it is good to vſe the like remedie, or elſe to apply to the eye a Cataplaſme made of young Wormewood, ſtamped with the milke of a woman and Roſe water. *A blemiſh in the eye.*

For an old redneſſe in the eye, take the bigneſſe of a ſmall Nut of white Copperas, and a ſcruple of Florence Ireos, as much of Roch Allome, make a powder, which you ſhall mix with halfe a pint of Fountaine water after the meaſure of Paris; or elſe boyle them all together vntill the water become cleare, and drop into your eye three or foure drops, either of the one water, or of the other: or make a Liniment to apply vpon it with the droſſe of oyle of Linſeed, gumme Arabicke, Tragacanth, Maſtick, and Camphire. *Redneſſe in the eyes.*

For

The inflammation of the Eye.

For the inflammation of the Eye, it is a ſingular remedie to apply to the eye the lungs of a Sheepe newly killed: or to make a Cataplaſme of the pulpe of a ſweet apple roaſted vnder the embers, mingled with Barley meale, the milke of a woman, Roſe water, and the white of an egge: The water of Marigoles is alſo ſoueraigne good in this caſe. A Wolues eye, 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 piece of Frankincenſe, ſet it on fire with a waxe Candle, after quench it in foure 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 eyes at night when you goe to bed: and in caſe you may feele great paine in your eyes, mixe together with this water a little of womans milke.

The weeping Eye.

To reſtraine teares and all other humors falling vpon the eyes, it is good to take a decoction of the leaues of Betonie, the roots of Fennell, and a little fine Frankincenſe, and to make an eye-ſalue thereof: alſo to waſh the weeping eyes oftentimes with the decoction of Cheruile, or to drop thereinto ſometimes the iuice of Rue mixt with purified Honey. Some hold it for a ſecret remedie to tye behind the head ſome drops of Amber, which alſo haue the vertue to ſtay the rheume falling downe into the throat: or elſe to drop into the eye water diſtilled of the gall of a man and Celandine: or elſe to annoint the edges of the eye-lids with the ſoot of Butter burned in a Lampe, which is a ſecret for to drie vp and ſtay all rheumes of the eyes, and to ſhut vp moſt ſpeedily all vlcers made in the great corners of the eyes, and all rheumes comming of the tenderneſſe or bleardneſſe of the eye.

The white ſpots of the Eyes.

For the white ſpots of the Eyes, take one or many new egges layd the ſame day by one or moe blacke Hennes, or for want of blacke Hennes, by other, roſt 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, ſtrayne all together through a Linnen Cloth verie cleane and doubled, that ſo you may doe it verie ſtrongly: the water or liquor that commeth forth is verie good to drop one drop after another into the diſeaſed eye, at night when they goe to bed, or at any houre 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 all ſtrayned through a Linnen Cloth, and of this there muſt be ſome put into the eye after dinner and at night going to bed. Some doe vſe with verie 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 pint 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 twice or thrice euerie day: Theſe remedies are likewiſe good for red, running, and weake eyes.

Acke in the Eare.

For ach in the Eare, comming of a hot cauſe, drop thereinto the oyle of Henbane: take oyle of Roſes, and a little Vineger, and make thereof an iniection into the eare, apply thereto afterward a bag of Camomill, Melilote, Linſeed, and Holihocks, boyled in milke. If the cauſe be of cold, then put therein musked Cotton, or a graine of Muske. *Scribonius* doth commend greatly the ſoot of Pitch dropped warme into the eare which aketh by reaſon of an inflammation, together with a little of the oyle of Roſes.

A noiſe in the Eare.

Againſt the noyſe and ſounding of the Eare, it is good to drop into the eares of the oyle of Rue, or Spike, oyle of bitter Almonds, or Bayes, together with a little Aqua vitæ, or fat of an Eele: or Aqua vitæ wherein hath beene ſteept the ſeed of Cummin or Anniſe: or elſe take the ſcrapings of the wood of Cedar tree, made verie ſmall, and thereof fill a bag of crimſon Taffata verie thin, of the greatneſſe of an Almond, dip it in verie 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

hole of the eare which bloweth and ſoundeth, and afterward lye downe vpon the ſame eare.

Againſt Deafeneſſe, you muſt drop into your eares the iuice of an Onion, or of Brionie, mixed with Honey or Oyle, wherein haue beene boyled the roots of Daffodill: or of the iuice of the rindes of Radiſhes, mixt with oyle of Roſes: or the fat of an Eele, and the oyle of bitter Almonds. *Deafeneſſe.*

For the loſſe of Smelling, or when it is corrupted, make a perfume with the ſeed of Nigella, the leaues of Aron, Rue, and other hearbes which haue a ſtrong ſauour: alſo ſmell oft vpon Mints. *The ſmelling loſt.*

For tumors vnder the eare, you muſt make a Cataplaſme of the flower of Barley boyled in honied water, and putting thereto the Muſcilage of Fleawort ſeed and the oyle of Lillies. A Cataplaſme made of the dung of Goats, freſh Butter, and the reſidence of the oyle of Nuts doth digeſt the ſwellings vnder the eare. *Swelling vnder the eare.*

Againſt the ſtinking of the Noſthrils, it is good to ſnuffe vp into the noſthrils of the decoction of Marierome, Calameth, Cloues, Ginger, and Nutmegs, made in white Wine, or elſe of the vineger of Squils. *Stinking noſthrils.*

To ſtay bleeding at the Noſe, you muſt by and by lay your thumbe vpon that ſide of the noſe that bleedeth, and you muſt put about your necke a neck-lace 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 and rootes of Agrimonie: or elſe hold in your mouth verie cold Ceſterne water, and change it oftentimes. Some doe much approue the vſe of Camphire, the flowers of Willow, the moſſe of Quinces, and other hoarie fruits put into the noſe: and to apply vnto the Browes Camphire, with the ſeed of Nettles, or with the iuice of Plantain or of Nightſhade: or elſe to apply vnto the Temples, and about the necke, eſpecially oueragainſt the iugular veines, hearbes of a cooling facultie, as Nightſhade, Plantaine, Lettuce, dead Nettles, or pricking Nettles, pounded with ſalt and vineger, Peruincle, & others. Peruincle alſo put vnder the Tongue hath the ſame vertue. Some doe make in like manner Neck-laces and Bracelets of the hearbe S. Innocent. Some hold in the hand, that is, on that ſide that the noſe doth bleed of, a branch of Holihocke. Diuers Countrie folkes, to ſtay any kind of bleeding in any part, doe wrap of Hogs dung in Cotton, and apply it to the place from whence the bloud 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. *Bleeding at the noſe.*

Againſt the ach of the Teeth, you muſt boyle in Vineger and Roſewater the root of Henbane, or of the Mulberrie tree, and to hold this decoction in the mouth: otherwiſe, take a Cloue of Garlicke, and roſt 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 ſame 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 drammes of the rootes of Pellitorie bruſed, of the leaues of Sage, Roſemarie, of euerie one halfe a handfull: Three fat Figges, and you ſhall boyle them all in tenne ounces of Wine vnto the conſumption of all the Wine: afterward, you ſhall take a quantitie of the ſaid Figges, and apply it to the aking tooth as hot as poſſible may be: or elſe waſh and gargle your teeth with the decoction of ground Yuie made in Wine, and to the conſumption of the third part of the ſaid Wine. After the ſame manner you muſt apply vpon the pulſes of the Temples a playſter made of Pitch, the powder of Allome, and a Gall, verie hot It is good alſo for the ach of the teeth to put thereupon the iuice of Garlicke, Motherwort, Rue, or ſome hot oyle, as that of Sage, which is ſingular in this behalfe. Some hold it for a ſecret, to weare about the necke the tooth of a man knit within a piece of Taffata: or a Beane found, in which there is incloſed a Lowſe, taketh away the moſt ſtrong paine of the teeth that may be endured. *Tooth-ach.*

It is good to foment the looſe teeth with the decoction of Roſewater and Allome: or elſe of the rootes of Cinquefoile and Allome: and in caſe you would cauſe *Looſe teeth.*

them

them to fall out, put in their hole or hollow place of the ashes of Earth-wormes, or of the dung of Mice, 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 apply thereunto the stone of a Mulberrie: or else steepe the root of Mulberrie 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 apply the same powder vnto your tooth: or else you shall apply 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 Celandine.

Blacke Teeth. To keepe the Teeth cleane and bright, and to preserue them from the falling downe of all manner of Rheumes, take a pint of Fountaine water, a third part of Rosewater, put therein two drammes of Allome, as much of Cinnamon, boyle 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, Rosemarie, and great Marierome, boyled in white Wine to the consumption of the third part.

Red Teeth. To stay the Canker of the Teeth, hold in the morning a great graine of Salt vnder your tongue vntill it be there melted, then rub your teeth therewith.

Stinking Mouthes. To take away the stinking of the Mouth, it is good to wash the mouth with Wine, wherein hath boyled Anniseed and Cloues: or to chaw the root of Acornes: or else to chew Masticke long ynough.

Stinking Teeth. For the stinking of the Teeth, it is good to rub 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 chew, all victuals of ill digestion, and all vomiting.

Wrinkled Hands. To white and take the wrinkles out of the Hands, take the drosse of oyle 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 Hysope and Folefoot, of each one handfull, Figges of Marcellis, damaske Raisins, and Licorice, of each an ounce, boyle them all in water vntill the third part be consumed; vse this decoction twice a day, two houres before dinner in the morning, and at euening one houre before supper. It is good likewise to take red Coleworts, and to make them boyle two or three boyles, with an handfull of Folefoot, and a slip or two of Hysope, and to vse this broth twice a day.

Squinancie. For the Squinancie, or soreness of the Throat, you must take a whole Swallowes Neast boyled with white Wine, and with the oyle of Camomill and sweet Almonds, therewith to make a Cataplasme, and to apply it vnto the throat: or to drinke by and by the weight of a French crowne of the tooth of a wild Boare powdred, with the water of *Carduus Benedictus*: or to touch the diseased place with a Liniment made of Linseed, and the powder of the tooth of a wild Boare: or else to apply vnto the place a Cataplasme made of the dung of a young boy of a good constitution, fed for the space of three dayes with Lupines and well baked Bread leauened and salted, and hauing Claret Wine to drinke, and no other eyther meates or drinkes, and adding to the foresaid childs dung an equall quantitie of Honey.

Pleurisie. Against the Pleurisie, drinke presently with the syrrup of Violets, or some other appropriate to the Breast whatsoeuer, the weight of a scruple of Nettle seed, or of the Ash Trees: or take three ounces of the distilled water of *Maries* thistle, or of *Carduus Benedictus*, or of Broome, a spoonefull of white Wine, six springs or straines of Egges that are verie new, the weight of a French crowne of the shells of French small Nuts made into powder, eighteene graines of red Corall powdred, all being mixed together, let it be giuen warme with as much speed as may be: mundified Barley, and the seeds of Melons, Gourds, Cucumbers, and Poppie, are in that case highly commended: roast a sweet apple vnder the embers, mix therwithall when it is roasted the

the iuice of Licorice, Starch, and white Sugar; giue thereof vnto the diseased twice a day, two houres before meat: or else take the weight of a French crowne of the powder of a wild Bores tooth, and cause him to swallow it, either with the iuice of sweet Almonds and Sugar Candie, or with the broth of red Coleworts, or decoction of the water of Barley, or some other such like, which is appropriate for the Breast: or else burne to ashes the pizzle of an Oxe, and giue a dram thereof with white Wine, if the ague be but small, or with the water of *Cardnus 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 dayes of the beginning of the sicknesse. The manner of making these ashes, is to cut the pizzle of the Oxe in gobbets, and laying it vpon the harth that is close layd, to set a new pot ouer it, and afterward to lay hot burning coales or hot embers about the pot, which must be oft renewed, 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 playster of blacke Pitch vpon the grieued 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, and syrrop of Hysope, if there be no great Feauer; or Violets, if it be great. Furthermore, for a Pleurisie which is desperate and past hope, take a sweet Apple, euen a verie excellent one, and take the kernels forth of it, and fill vp the hollow place with fine Olibanum, rost it couered ouer and rolled in stupes vnder the hot embers throughly, and then giue it to the sicke of the Pleurisie to eat.

Spitting of Bloud.

For the spetting of Bloud, 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, Horse-taile, or Knot-grasse, otherwise called the hearbe of S. *Innocent*: or to swallow downe some small drops of Masticke, or Harts horne, or Goats horne burnt, or Bole Armoniake, or Terra sigillata, or Corall, or Amber, or the powder of the innermost rind of Chestnut tree, or of the Corke tree: or frie the dung of an Hogge with fresh Butter, and of that cluttered bloud which the sicke partie shall haue sper, and so giue of these thus fried together to the sicke partie to eat.

The beating of the Heart.

For the beating of the Heart, it is good to hang about the neck so much Camphire as the quantitie of a Pease, or to drinke two or three ounces of the water of Buglosse and of Baulme: some hold the distilled water following for a singular and soueraigne remedie. Take two Hogs harts, three Stags harts, or the harts of three Bulls, Nutmeg, Cloues, and Basill seed, of each three drams, flowers of Marigolds, Burrage, Buglosse, and Rosemarie, of each halfe a handfull; steepe them all in Malmesey or Hipocras for the space of a night, after distill them with a Limbecke, and reserue the water for vse, which shall be by taking three or foure ounces when necessitie doth require. The conserue of Betonie, and Rosemarie flowers: Cinnamon water, Aqua vitæ, and Imperiall Waters, which wee haue set downe in our worke of the beautifying of mans bodie.

Swouning.

For the faintnesse of the Heart, or Swouning, it is good to straine and wring the ioynt of the Ring or Physitions finger; as also to rub the same with some piece of Gold and with Saffron: for by the meanes of that finger his neere communicating with the heart, there is from it conueyed and carried some vertue, restoring and comforting the heart.

Flagging, withered, and hanging Brests.

For the flagging and hanging breasts of Women, make a liniment with the drosse of the oyle of Linseed, a little gumme Arabick, Tragacanth, Mastick, and Camphire: or with the iuice of Succorie: or apply thereunto ground Iuie, or the egges of Partridges, which you shall change oftentimes: or small Basins of the distilled water of young Pine-apples, or the iuice of wild Pine-apples.

Want of Milke.

To procure much Milke vnto Nurses, they must vse the fresh and new-gathered iuice of Fennell oftentimes, or the iuice of Smallage, or of Beets, or the powder of the rootes of *Maries* thistle, adding thereto the seed of Fennell and a little Pepper: the

the fore-hoofes of a Cow burned, and drunke with Wine, or Broth, or other conuenient liquor: or the powder of Cryſtall powdred very finely and drunke with Wine or ſome broth: or let them eat of boyled Coleworts ſeaſoned with Pepper: or of the roots of Rapes boyled with Pepper.

Abundance of Milke. To cauſe Women to looſe their Milke, you muſt apply vpon the nipples of their Breaſts the roots of great Celandine ſodden and pounded: 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 boyled and mixed with Oyle of Camomill: or the leaues of young and verie greene Gourds: or of Cray-fiſhes, all to brayed and ſtamped in a Mortar.

The inflammation of the Breaſts. For the inflammation of the Breaſts, comming of the great aboundant ſtore of Milke, take the dyrt found in the bottome 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 Breaſt, you may apply vnto it a Cataplaſme of the flower of Rice, or of pure Wheat, boyled till it become like pappe, 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 Anniſe, Fennell, Caraway, and Coriander ſeed: or elſe to drinke Wine in the morning two or three times; and that ſuch, as wherein hath beene boyled Bay-berries, Anniſe, Coriander, and Fennell ſeed; 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 endure 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 reckon the firſt, ſaying one, or borrowing, hee ſhall haue no moe but that one.

Vomiting. Againſt Vomiting, take a toſt of bread and ſteepe it in the claret water hereafter deſcribed, or in the iuice of Mints, ſpread it ouer with the powder of Maſticke, apply it warme vnto the ſtomacke, renewing it euerie three houres. Otherwiſe, take two handfuls of Mints, and one of Roſes, boyle them in Wine, take afterward two ounces of toſted bread, and let it be well ſteeped in Wine, and afterward compounded with Maſticke and the ſaid Mints and Roſes, make thereof a playſter to lay to the ſtomacke before you goe to meat. It is true, that if the vomiting be with an ague, it will be good to boyle the Mints and Roſes, and to ſteepe the toſted bread in vineger. In like manner, Mints brayed and mingled with oyle of Roſes, applyed vnto the ſtomacke, is a ſingular helpe for any kind of vomiting: it is good likewiſe at the end of meat to ſwallow downe one gulpe of Water, or a morſell of Marmalade of Quinces, not drinking afterward: and in the morning, two houres before meat, to ſwallow fiue or ſix Pepper-cornes whole with Wine, or the ſirrup of Mints, or of Wormewood, or greene Ginger preſerued: It is alſo good to ſet cupping Glaſſes vpon the bottome of the Stomacke, or vnder the Nauell, and then chiefely when the partie eateth: to take reſt after meat, 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 Oyle of Camomill, and wrapt in a Linnen cloth, let it be applyed vnto the paine: or elſe fill a Swines bladder with the decoction of the leaues of Bayes, Organie, Marierome, Mints, Time, Camomill, Calamint, Melilote, Anniſe, and Fennell ſeed, apply it to the paine, warme it againe when it ſhall be cold: or elſe make a cake

with

with a handfull of Wormewood, Mints, and Roſes kneaded with Rye, Leauen, and Wine, and apply it vnto the ſtomacke.

For the obſtruction of the Liuer, vſe a decoction made of Succorie, the roots of Parſley, Smallage, Fennell, Dogs graſſe, Patience, Butchers broome, Cich peaſe, *Capillus Veneris*, Hoppes, and Fumitorie: vſe likewiſe oftentimes the ſhauings of Iuorie. *The Liuer obſtructed.*

For the heat of the Liuer, there is nothing better than to vſe Lettuce, Sorrell, Purcelane, Hoppes in pottage, and ſometimes to drinke the water of the ſaid hearbes faſting, or the water of Endiue. *Heat of the Liuer.*

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 dayes: or elſe of the decoction of the leaues and roots of Strawberries: or elſe take Miſsletoe of the white Thorne, gathered before the Sunne riſe, about a handfull, three or foure roots of Parſley, bray them all together 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 remedie than many others; which notwithſtanding women with child muſt not vſe, but in place of it you muſt apply to the wriſts and ſoles of their feet the leaues of Miſsletoe of the Oake, of great Celandine, and Horehound, the whole being brayed 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 drie them, and making 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 dayes: or to drinke for the ſpace of eight mornings with white wine faſting, fiue trottles of a Goat. Some ſay, that to carrie in the left hand three leaues of wild Rocket, doth cure the Iaundiſe. Some alſo hold, that to weare vnder the ſoles of the feet the leaues of Shepheards purſe, or of great Celandine, next vnto their bare feet, doth the like. *Iaundiſe.*

For the Dropſie, it is good to make a drinke with the ſeed of Broome, pounded and brayed in white wine: or to make a drinke of the iuice of the root of Gladiolus or Aſarum with white wine: or to drinke faſting his owne vrine for the ſpace of certaine dayes: to apply in like manner vnto the moiſt places a Cataplaſme of Cowes dung warme; with which, as *Galen* teſtifieth, a Phyſition of Miſia did maruellouſly heale all manner of Dropſies: or to apply vpon the ſwolne place ſhell-Snayles aliue, not waſhed, but carefully bruiſed. A ſecret remedie againſt the Dropſie, is to drinke with honied water the powder of Glaſſe ſeuen times burned and ſeuen times quenched in the iuice of Flower-de-luce, or white wine. *Dropſie.*

For the paine or heauineſſe of the Spleene, drinke wine wherein hath boyled Scolopendrium, Sperage, and Hoppes: or elſe drinke oftentimes faſting of the broth of red Coleworts halfe boiled, or of the decoction of Romane Wormwood, or of *Pauls* Betonie, or of ſmall Centaurie, or Smiths Forge-water. *Paine of the Spleene.*

For the paine of the Collicke, there is nothing more ſoueraigne than 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 do touch the fleſh. There is alſo nothing more ſingular, than to drinke, in a pretie draught of white wine, the red pill which is to be found in the ſpace and cartilaginous griſtles of Walnut kernels, dried in the moneth of Auguſt, and made into powder: or to drinke foure or fiue ounces of the oyle of Nuts, or of Linſeed, or of the ſhells of ripe Nuts, or the water of Camomill, or the decoction of the ſeed of Hempe, or Wine wherein hath beene ſteept for the ſpace of tenne or twelue houres the root of Enula campana bruiſed: or the powder of a Stags pizzle, drunke with water: or the dung of Hennes, drunke with Hypocras made of honey and wine: or a Cliſter made of Brine: or the heart of a Larke ſwallowed downe while it is freſh and new: or the ſaid heart of a Larke faſtened to the thigh. As concerning outward remedies, ſome approue greatly to take the skin of a ſheepe all new, or the kell of the intrailes of a ſheepe newly killed, & to apply it vnto the bellie: or to make a bag of Millet, Branne, Wheat, and Salt fried together, to lap *Collicke.*

vpon the bellie: A Cataplasme made of Wolues dung is also profitable against the Collicke: the same dung drunke with a little wine doth verie much good: the bones found in the dung of a Wolfe, pownd small, and drunke with wine, haue the like qualitie. Some say, that if you take ashes comming verie hot from vnder the coales of fire, and put the said ashes in a dish or pot, and afterward poure thereon a good glasse of Claret wine, and afterward couer the said dish with ashes, with a linnen cloth foure double, and apply it vnto the bellie, you shall find release and mitigation of your paine.

Flux of the Bellie. For the humorall flux of the Bellie, it is good to drinke milke, wherein hath beene quenched a gad of Steele, or of yron: or milke boyled with a halfe quantitie of water, and that vnto the consumption of the water: or hee shall take of a Stags pizzle with Cesterne water: to vse Rice parched: to take a dramme 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.

The bloudie Flux. For the bloudie Flux, 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 dayes hath fed vpon nothing but bones, and this you must drie to make into powder: of this powder giue vnto him that is troubled with such Flux twice a day in milke, wherein you shall haue quenched manie stones of the Riuer, verie throughly heated in a verie hot fire; continue this two or three dayes: or else giue to drinke the distilled water of the great Burre: or the decoction of shepheards Purse: or the distilled water of Woodbind: or else giue to drinke the seed of Plantaine in powder: or the distilled water of the first buds of the Oake: or the powder of Snayles burnt with the powder of Brier-berries, and a little white Pepper and Galls: or of the Harts and Goats horne burned: or rather of the pizzle of a Hart prepared, as wee haue taught here aboue, in setting downe the remedies for the Pleurisie.

Flux of Bloud. For to stay the flux of Bloud, drinke a reasonable draught of the iuice or decoction of dead Nettle: make Clysters with the iuice of Plantaine and Horse-taile: vse the broth of Coleworts sodden verie tender: the iuice of Pomegranats, and the substance it selfe: Sallads of Plantaine and Sorrell: chaw oftentimes some Rubarbe.

Costiuenesse. To loosen the Bellie, you must eat sweet Cherries, or Peaches, Figges, or Mulberries fasting: to sup the first broths of Coleworts, of Beets, of Mallowes, or Lettuces, or of Cich-pease without salt: to apply vnto the stomacke a Cataplasme made with Honey, the gall of a Bull, and the root 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 Beet.

Wormes. To kill the wormes of little children, it is good to cause them to vse preserued Rubarbe, 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 Purcelane, Rue, or Wormwood, or else to cause them to swallow, with a verie 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 verie fine powder: or of the powder of blessed Thistle, or of Coralline, the weight of a French crowne: also to apply vnto the Nauell a cataplasme made of Wormewood, Tansie, and an Oxe gall: and all this must be done toward the later end of the Moone.

Paines of the Hemorrhoids. To stay the excessiue paine of outward Hemorrhoids, you must make a Liniment of oyle of Roses, washed in the water of Violets, fresh Butter, oyle of Linseed, the yolke 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 yolkes 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 Hemorrhoids there is nothing more singular than the perfume made of shauings of Iuorie.

To

To ſtay the exceſſiue flux of the Hemorrhoids, it is a moſt ſingular remedie to drinke a dramme of red Corall, or of the ſcumme of yron, with the water of Plantain, 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 Armoniack, with the white of an egge, or of three Oyſter ſhells finely poudred either raw or burnt, and mixt with a little freſh butter. *The flux of the Hemorrhoids.*

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, verie ſingular for this purpoſe: The fruit of the Eglantine preſerued before it be ripe, after the manner of Marmalate 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 than a reaſonable draught of white wine, or of the water of wild Tanſie, or ſuch other, is verie excellent therefore. He muſt alſo drinke very oft with white wine the pouder of the pilling of Reſt-harrow, or Buck-thorne: or of the gumme which groweth round about the rindes of Vines: or of the ſeed of Gooſe-graſſe finely powdred: or to drinke the diſtilled water of Radiſh roots and Nettle roots, with a little Sugar: or the water of Broome: or of Dogs-graſſe; or of wild 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 eye of a Partridge: or of the braine of a Pie: or of the inward skin of the ſtomacke of a Henne or Capon. Euerie man prayſeth this decoction, whereof *Ætius* maketh mention in his chapter of Sea-Holly: Take the roots of Sea-Holly (the pith taken out) and make them verie cleane, ſteepe them eight houres in Fountaine water, after that to boyle them till the halfe of the water be conſumed; in the end of the boyling 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 Pellitorie of the wall vnto the reines, or elſe a Cataplaſme made of the root of Cypres and the leaues of Bell-flower boyled in wine. The beſt and moſt ſoueraigne of all the reſt is to prepare a Bath, wherein haue boyled the leaues of water-Parſley, Mallowes, Holihocks, March Violets, Pellitorie, flowers of Broome and Camomill, and within the Bath, vpon the reines, a bagge full of Branne and water-Parſley. *The ſtone in the Reines.*

For the Collick, cauſed of Grauell, cauſe to boyle the leaues and flowers of Camomill in an equall quantitie 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 roots in white wine, or the decoction of hearbe Patience, or of the Thiſtle, ſaid to haue an hundred heads, or of Bell-flower, or of the white prickly Thiſtle, or of Sperage, or of Dogs-graſſe, or of Reſt-harrow: alſo apply vpon the yard or ſecret parts a Cataplaſme or Liniment of Fleawort. Some hold it for a great ſecret to drinke white wine wherein hath beene brayed Sowes found in caues and hollow places: or to make powder of the ſaid Sowes dryed, and ſo to giue the ſame to drinke in white wine. Others doe greatly eſteeme the diſtilled water of the pillings of the root of Reſt-harrow, firſt ſteeped in Malmeſey. *Difficultie 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 dryed: of Broome-ſeed, Burnet-ſeed, and of the ſeed of Sperage, Holihockes, Saxifrage, Melons, Pompions, Citruls, and of the hearbe 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 young Ladie 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 Sponges, or of the ſtone which is found in the head of Cray-fiſhes, or of the ſhells of ſmall Nuts, *The ſtone in the Bladder.*

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 Holihock. 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 verie fine powder, and giuen with white wine vnto the partie troubled with grauell, doth breake the stone in them in any part of the bodie. Another secret is that of the shells of egges which haue brought forth Chickens, being brayed, brewed, 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 than to eat oftentimes the lungs of a young 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 Goats bladder, or the powder made of the roots 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-Snayles and whites of egges of each a pound, of the great and small cold seeds of each halfe an ounce, halfe a pound of the water of Lettuce, foure ounces of good Cassia, three ounces of Venice Turpentine, powne that which may be powned, and let it all stand to mix together for the space of a night, afterward distill them in a Limbecke in *Maries* bath: let this water settle some time before that you vse it; giue thereof halfe an ounce euerie morning, with a dramme of *Saccharum Rosatum*, continue the vse thereof as long as you are able.

Barrennesse in women. To make a woman fruitfull which is barren, let her drinke foure dayes after the purging of her naturall course, the iuice of Sage, with a verie little salt, and let her continue and goe ouer this course diuers times.

The menstruous flux. To stay the excessiue flux of the flowers of Women, they must drinke, with the iuice of Plantaine, the powder of the Cuttle bone, or the bone of a Sheepes foot burned, or the shells which Pilgrims bring home after their pilgrimage to S. *Iames*, or of Corall, or of Harts horne, or of the shells of burnt egges: or of twelue red graines of the seed of Pionie: or to swallow with the yolke of an egge the powder of Tezill: or the scumme of yron, first dipt in vineger, and after made into fine powder. And as for outward meanes, it is good to apply vnto the Nauell shell-Snayles well brayed, or the red in the void space of the Nut, burnt, and powdred, and mingled with wine: Make a Cataplasme of Soot, or of the scraping got from vnder the bottome of a Cauldron, 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 bag sufficient full of grosse salt, to dip in fresh water newly drawne out of the Well, and to apply it to the hollow of the Reines. Some make great account of Cherry-tree gumme infused in the iuice of Plantaine, and cast into the priuie parts with small Sirings: or to apply to the breasts the leaues of Celandine.

The white termes. For the white termes of Women, after that the bodie is purged, it is good to drinke with the iuice of Plantaine, or the water of Purcelane, the powder of Amber, of Corall, or of Bole Armoniake, or of Terra sigillata, or of Steele prepared, or of Sponge burnt in a pot, or of the Sea-Snayle first burnt and afterward washt in wine. And as for outward meanes, there must be made a Lee with ashes of Oake wood, or of the Figge-tree, or of the Osier, in which there must be boyled the rind of Pomegranats, Galls, pieces of Corke, leaues and roots of Bistort and of Peruincle, beyond-sea Roses, with a verie small quantitie of Allome and Salt, and of this to make a fomentation or a halfe bath.

For to cause women to haue their termes, they must drinke euerie morning two ounces of the water of Mugwort, or of the decoction of Dogs-grasse, Cich-pease, the seed of common or Romane Nigella, of the root of Smallage, Cinnamon, and Saffron, the roots 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,

wine, is ſingular in this caſe: A Bath alſo is verie good, and it may be prepared with water of the Riuer, in which ſhall haue boyled Mugwort, Mallowes, Holihock, Camomill, Melilot, and other ſuch like hearbes, and within the Bath to rub the hippes and thighes, drawing them downeward, with a bagge of Mugwort, Celandine, Cheruile, Smallage, Betonie, ſeeds of Nigella, and other ſuch like. Some eſteeme it for a rare remedie for to take the weight of one or two French crownes of the marrow of a Hart, to tye it within a little knot of fine and cleane linnen, and to put the ſaid knot into the woman her ſecret place deepe ynough, but this to be after the bodie hath beene prepared and purged.

For the ſuffocation of the Matrix, the legges muſt be rubbed alwayes drawing downeward, and tying them hard, to put the partie thereby to great paine: put cupping-glaſſes vpon the thighes, rub the ſtomacke, drawing downeward 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 ſhooe ſoles burnt; and below, to apply things that are verie ſweet ſmelling, as Cloues, Marierome, Amber, Time, Lauander, Calaminth, Penny-ryall, Mugwort, Ciuet; the leaues of white Mulleine, which hath his ſtalke riſing verie high; you muſt alſo giue her to drinke the quantitie of a beane of Mithridate, diſſolued in the water of Wormewood, or fifteene red or black ſeeds of Pionie, bruiſed and diſſolued in wine. The onely remedie for this diſeaſe is, that if it fall out that the ſicke partie be with child, that then her husband dwell with her: for the remedies before ſpoken of are dangerous for women with child. Some doe much eſteeme in this diſeaſe the courſe following, that is, that the woman euerie weeke, to keepe her ſelfe free, ſhould drinke three ſpoonefuls of white wine, wherein hath beene boyled and ſteept an ounce of the root of Brionie. *Suffocation of the Matrix.*

For the falling downe of the Mother, the partie muſt be cauſed to vomite, to haue her armes rubbed and bound hard to moue great paine, to ſet cupping-glaſſes vpon her breaſts, and to cauſe her to ſmell vnto ſweet and odoriferous things; and below, to apply things 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 verie ſharpe: In like manner, a Cataplaſme made of Garlicke ſtamped and diſſolued in water: or Nettles newly braied and applied vnto the bellie, cauſeth the Matrix to returne into his place. Holihocks boyled with oyle and the fat of Quailes, made in forme of an emplaſter, and applyed to the bellie, are verie profitable. Aſhes made of egge ſhells, wherein Chickens haue beene hatched, mixed with Pitch, and applyed vnto the belly, doe put the Matrix againe into the place. Some are of opinion, that one leaſe of Clot-burre, put vnder the ſole of the womans foot, draweth downe the Mother, and being applyed vnto the top of the head, doth draw it vp on high. *The falling downe of the Mother.*

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 Barley flower, the rinds of Pomegranats, and the iuice of Plantaine, Houſeleeke, or Nightſhade. *The Inflammation of the Matrix.*

For the inflammation of a mans yard, the ſame Cataplaſme will be very ſoueraigne, if there be added vnto it ſome quantitie of drie red Roſes: or elſe take the new dung of a Cow, frie it in a panne with the flowers of Camomill, Brier, and Melilot, lay it to the cods, you ſhall perceiue the ſwelling to depart quickly. *The Inflammation of the yard.*

To take away the ſtinking ſmell of the feet, put within your ſhooes the ſcumme of yron. *The Stinking of the feet.*

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 lyeth, turne the fawne out of the ſaid membrane, and without waſhing of it, drie it in the Ouen, after the bread is drawne forth: 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 foure ſpoonefuls of wine: let her not riſe of foure houres after, and aduiſe her that her husband may lye with her.

To be brought in bed before due time.

If a woman with child haue accustomed to lye downe before her time, it is good that whiles she is with child she vse, with the yolke of a new egge, a powder made of the seed 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 pizzle, 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 keepe the infant in the mothers wombe. Some say also, that the slough of an Adder, 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 armepit, or hanged at the arme of the left side, doth keepe the infant, and hindereth vntimely birth.

Hard and painfull labor.

To bring to bed the woman which is in trauaile of child, you must tye 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 child is borne, and the woman deliuered, to take it away: for the same purpose to giue her the decoction of Mugwort, Rue, Dittame, and Pennyryall, or of the iuice of Parsley drawne with a little vineger, or of white Wine, or Hypocras, wherein hath beene dissolued of the powder of the Canes of Cassia, of Cinnamon, of the stones of Dates, of the roots of Cypres, of the flowers of Camomill, of the root of round Aristolochie or Birthwort, or the iuice of Tota bona with white wine, or else the leaues of Tota bona stamped, layd vpon the secret parts and round about. And when a woman is in trauaile of child, 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 pint of good Aqua vitæ, according to the measure of Paris, about three ounces of Cinnamon well shaued, by the space of three dayes, in the end whereof let the said water runne 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 need requireth. This water is principally good for all the diseases of the Mother, as also for Fainting, Swowning, weakenesse of the Stomacke, difficultie of Breathing, of making Water, and manie others.

The claret water.

The after-birth.

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 child-birth vnto women, you must giue to drinke a spoonefull of the foresaid 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 yolkes of egges hard roasted, or fried with oyle of Nuts and Iasmines, putting thereto of the seeds of Annise and Cummin powdred, the flower of Beanes, fresh Butter, and oyle of Rue and Dill.

If the Matrix after child-birth be out of frame, it is good to apply vnto the belly a Cataplasme made of Cowes, Sheepes, or Goats dung, adding thereto the seeds of Cummin, Fennell, Annise, and Parsley, with a quantitie of very good wine: and for want of this Cataplasme, the belly may be couered all ouer with the kawle of a newslaughtered Sheepe or Goat: 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 apply vnto the place a Cataplasme made of the flower of Beanes and the lees of white Wine, or a Cataplasme made of the root of the great and small Comfrey, and of stone-Pitch, with a little Masticke, or double linnen clothes dipped in the iuice or liquor 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 dayes, a drinke prepared of the iuice of the roots of *Salomons* seale, and female Ferne, the

leaues

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 Snayles, make them into powder, and giue of this powder for the ſpace of fifteene dayes, or longer if need be, with ſuch pap as is made for little infants, or with pottage, if they be paſt the Teat. For them that are more daintie and delicate, you ſhall diſtill the ſaid Snayles 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 weight of a French crowne euerie morning ; applying in the meane time a certaine pap or thicke clammiſh ſubſtance, ſuch as is to be had in the Paper-Mills, and tye vpon it a Truſſe.

For paine in the feet and hands, boyle a good handfull of Mugwort in a ſufficient quantitie of oyle Oliue, vnto the ſpending of the third part, make thereof an Oyntment for the payned place : Giue alſo to drinke the weight of a French crowne of the ſeeds of Ebulus, with the decoction of one of the hearbes called Arthritica. *Gout and ach in the hands.*

For the Sciatica, you muſt apply to the grieued place a Cataplaſme made of the crummes of Citizens bread, kneaded or boyled in Cow or Sheepes milke, putting thereto two yolkes of egges and a verie little Saffron : otherwiſe there muſt be prouided a Cataplaſme of the roots of Mallowes and Holyhocks, the leaues of March Violets and of Mallowes, the flowers of Camomill and Melilote, all boyled in the water-broth of Tripes, after waſht and wrought together with yolks of egges, flower of Linſeed, Hogges greaſe, and oyle of Camomill : or elſe, and more eaſily, you muſt make a Cataplaſme with Cowes dung, flower of Beanes, Branne, Wheat, & Cummin ſeed, all beat and made into a maſh with honied vineger : it is true, that if the grieued 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 boyle them afterward with oyle of Rue and Wormes, and with a little Wax to make a Liniment. A Cataplaſme made of the dung of an Oxe or a Cow, and wrapt in the leaues of the Vine or of Coleworts, and heated among the embers. And in caſe you would draw out of the vtter-moſt part, vnder the skinne, that which is ſettled in the inner places of the ioints, then apply this Cataplaſme made of the dung of Stock-doues or Houſe-doues, an ounce, of Muſtard and Creſſes ſeed of each two drammes, oyle of old Tyles an ounce, mixe all theſe very well together. *Sciatica.*

For the ſhaking of the parts of the bodie, vſe a long time the decoction of one of the hearbes Arthriticæ, called Primroſe and Sage : eat alſo oftentimes of Pine Apples.

For Sinewes oppreſſed, take the ripe ſeed of Danewort, put it in a violl halfe full, fill it vp with oyle Oliue, ſtop it verie cloſe, and let it boyle foure and twentie houres in a Poſnet full of hot water, and as oft as the hot water ſhall be boyled away, you muſt put other in place of it all the time of the foure and twentie houres ; which being expired, take away the ſaid violl of water, and ſet it in a dunghill tenne whole dayes. You may alſo make oyle of Danewort for the ſame purpoſe : fill an earthen veſſell, well leeded to the halfe, with the iuice of the leaues of Danewort, and powre thereupon ſo much of oyle Oliue ; ſet this veſſell, well ſtopt with paſte, in an Ouen, after the bread is drawne ; there let it ſtand till the iuice be waſted : keepe this Oyle for Sinewes that are cold and benummed : Or more eaſily apply vnto the place the dung of an Oxe or a Cow fried with ſtrong vineger or the oyle of Acornes : or the gumme of the wild Peare-tree ſoftened with Capons greaſe, or the oyle of Linden or Ieſamine tree. *Sinewes oppreſſed.*

For the prickings of Sinewes, take Snayles with their ſhells, bruiſe them, and adde thereto a little of the flying duſt that is to be gathered vpon the walls of the Mill-houſe, and apply it to the place pricked : or elſe rub it with the oyle of Wormes. *For the pricking of the ſinewes.*

For Sinewes that are pained, take raw Wormes of the earth, bray them and lay them haſtily and with ſpeed vnto the benummed ſinewes. Or elſe infuſe in the Sunne *For the paines of the ſinewes.*

the

the flowers of Elder in the oyle of Nuts, and rub therewith the pained sinew, or rub and chafe the same with the oyle of Balsam.

Paines of the ioynts. For all other sorts of paines in the ioynts, it is good to make an emplaister with the iuice of red Coleworts and Danewort, the flower of Beanes, flowers of Camomill and Roses made in powder, and to apply them vnto the pained place. Otherwise, cut in thinne shauings the root 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 roots and leaues of Danewort, the leaues of Scabious, the small Comfrey, and wild Sage, boyle all together in wine, after let it passe through a Searce, and put thereto oyle of Spike, Aqua vitæ, and the oyle of Neats feet. Otherwise, take a very fat Goose puld, and the garbage taken cleane out, after stuffe her with Kitlins that are well liking, and chopped verie small with common salt, and roasted at a small fire, and looke what droppeth forth, let be reserued for an oyntment for the grieued place. Some likewise apply for the paines of the ioints young whelpes vpon the pained places. *Galen* saith, That hee was wont to soften all such hardnesse as is wont to happen about the knees, by applying vnto them old Cheese all mouldie, stamped with the broth wherein a salt Gammon of Bacon hath beene boyled.

Windie swellings. To take away the Swellings procured of Wind, you must take fried salt, and put it betwixt two Linnens vpon the Swelling: or apply 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 verie red, make a Cataplasme with the leaues and flowers of Violets, flowers of Henbane, leaues of Nightshade, flowers of Camomill and Melilote, all boyled in wine and water, strayned through a Searce, and applyed vnto the aking place: Or else draw the iuice of Houseleeke, with a little red Wine, and the flower of Barley, make an emplayster for the place. The dung of Goats 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 Barley flower 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 meat three whole dayes together, and after fed with the gobbets of a fresh Eele: It is good also to apply raw Wheat champed or chawed a long time: A Cataplasme made of the leaues and roots of Mallowes, Holihocks, Onions, Lillies, crums of white bread, all sod together, and after strayned through a Colander, adding thereto the yolke 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 roots of Elacampane, Danewort, Lillies, and Brionie, flowers of Camomill 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 flower of Wheat, the yolke of an Egge, Honey, and Hogges grease, after heat them all together, and make a plaister to lay to the sore: or else lay vpon it Sheepes dung steept in vineger, if in case you mind to soften and resolue it.

A naile, otherwise called a furuncle or cats-tayle.

Tetters. For Tetters you must vse the iuice of Purcelane, Celandine, Plantain, Nightshade, and Limons: and if this medicine appeare not to be strong ynough, 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 day in strong white vineger the root of hearbe Patience, cut into shiuers, rub the place where the Tetter is with one of the shiuers three or foure times a day: Or else boyle tenne graines of Sublimate, and halfe a dramme 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 gumme of Cherrie tree, a verie little Brimstone, with twice so much salt as Brimstone, steepe all together 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 gumme

that

that groweth about the Vine: but before this, you must rub them with Salt Nitre, or else with the hearbe Nicotiana, applying both drosse and iuice together vnto the place.

To take away the markes and pits of the small pocks, take an ounce of Oyle, or of the flowers of S. Iohns wort, 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 boyle and to swell vpward, take it from the fire, and let it coole, rub and chafe the places of blacke spots with this oyntment, and continue it so long, as till the pits be filled vp. *The pits of the small Pocks.*

For Vlcers and Apostemes which happen about the Nailes, lay vpon the soare a little worme which is found in the head of the Tasell when it is drie. *Vlcers about the nailes.*

For hard Swellings, take Mallowes, Holyhocks, the roots of Lillies, Pellitorie, the leaues of white Mullein, seed of Line and Holyhocks, flowers of Camomill and Meliloe, let all be boyled in equall portions of water, wine, and vineger; after passe them through a Colander, adding thereto the flower of Barley and Beanes, the powder of Camomill and Roses, Hennes grease, and fresh and new Butter: make a playster 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 pame. *For schirrous tumors.*

For such as are fallen from on high, giue the weight of halfe a French crowne of this powder with good wine, Mummia, Tormentill, Rhaponticke, Sperma cœti, of each a dramme: or else giue the weight of a French crowne of the powder of the seed of Garden-Cresses, of Mummia, of the seed of Houseleeke prepared, and Sugar Candie. *Falls from on high.*

For a greene wound, you must take Garden Baulme, the great and small Comfrey, and a little salt, poune 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 bind vp the wound by and by, and assure your selfe, that within three dayes it will be recouered. Otherwise, take the Elme apples, the flowers of S. Iohns wort, and of Rosemarie, the knops or buttons of Roses, put all together in a glasse-bottle full of oyle Oliue, stop the bottle diligently, and set it to the Sunne so long as till all be so farre 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 violl to drop into wounds. The readiest and most soueraigne remedie is the iuice of Nicotiana, and the drosse or substance likewise, and also the oyntment made thereof, which wee will handle hereafter, *viz.* in the seuentie six chapter of the second Booke. This oyntment is very singular: Take Veruaine, Agrimonie, Betonie, and Pimpernell, of each a handfull, wash them diligently; and being washed, swing them well, stampe them together in a mortar; being stamped, put them in an earthen vessell well glased, with seuen pints of white wine, to boyle till halfe of it be consumed, the vessell in the meane time being close couered, and the fire burning cleare 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, and also strained through a hairie strainer, a pound, halfe a pound of white Waxe in graines, Masticke and Turpentine of each one ounce, make thereof an oyntment of good consistence. Likewise there is nothing more singular than to take of Greeke Pitch, Brimstone, and Olibanum equall parts, to bray them together with the whites of egges, and after you haue stanched and wiped away the bloud in handsome sort, to ioyne and bring together the edges of the wound, and to apply it thereto with a linnen cloth and a Cataplasme, afterward to bind and roll it vp with double linnen clothes, and so to leaue it for certaine dayes: or else boyle the leaues of *Carduus Benedictus* and flower of Wheat in Wine vnto the forme of an Oyntment, wash the Vlcers twice a day with Wine, afterward lay thereunto this Oyntment: Or else wash the wound *A greene wound.*

with

with the decoction of Dent de lion: more easily thus; Take the dyrt which you find 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, Spearewort, or small Plantaine, Mallowes, All-good, of each a handfull, French Sage about foure and twentie leaues; let all the foresaid hearbes be well picked, washed, and after stamped verie well all together: 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 hearbes, and when you see that the liquor of the hearbes is consumed, you shall straine it, and put thereunto as much Frankincense 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 oyntment, of which you shall make vse for all sorts of wounds. Otherwise, take Brimstone most finely powdred and searced, put it in a Glasse-vessell, and powre thereupon so much oyle Oliue as will doe more then couer it by foure or fiue fingers, set it out vnto all the heat of the Sunne you can for the space of tenne daies, and stirring it about manie times with a Spatull of cleane and faire wood, and keeping the said vessell close shut continually, to the end there may not any dyrt fall thereinto. At the end of the tenne dayes 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 goe 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 Cloth, Cotton, or blacke Wooll 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 oyle againe the second time vpon the residence (left after the oyle powred out, as beforesaid) and doe as was done before. Make account of these two later Remedies as of those which will not faile you.

The Carbuncle Anthrax, &c.

For the Boyle called *Anthrax, Carbunculus*, and other such pestilent tumours, see that you apply vnto them Rue bruised and mixt with verie strong Leauen, Figges, Cantharides, Onions of the Land and Sea, vnquencht Lime, Sope, gumme Ammoniacke, and a little Treacle; for this emplaster draweth forth such kind of tumours: Or else take a Toad, drie her either in the Sunne or in the Ouen, make her into powder, and put of this powder vpon the Carbuncle, & it will draw forth all the venome: Or else apply vnto the Carbuncle a Frog aliue, and if she die, then another, and doe this so oft as vntill that one doe liue, and so you shall draw out all the venome.

Vlcers of the Pocks.

For vlcers comming of the Pocks, and such other maligne ones, take tenne pints of water, quench therein hot yrons so long as till the tenne pints become but fiue, and in these fiue pints infuse for the space of foure and twentie houres a pound of vnquencht Lime, after that straine the water, when it is strained, dissolue therein fifteene graines of Verdegrease, and as much of Vitrioll, and twentie graines of Camphire: this water is singular to mundifie, cleanse, and drie vp Vlcers. Otherwise, set to boyle in a new earthen vessell verie cleare water, when it beginneth to boyle, 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 cleare, 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 violl or other vessell well stopped, that so it may serue for your vse; in which, being warme, dip a linnen cloth, and apply it in stead of an emplaister vnto the Vlcer, and renew it oft.

A wound with shot.

To draw out miraculously a Pellet, make a tent of a Quince, and for want of it, of Marmalate of Quinces onely, without any addition of Spices, or other things, annoint it with the oyle of egges, and put it into the wound or hole made by the shot of the Pistoll.

For

For inward wounds, 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 Mugwort, great and small Comfrey, whole Betonie, Agrimonie, the roots of Rubia, otherwise called the Diers hearbe, the roots of small Plantaine, otherwise called Carpenters hearbe, Sage, the leaues of Brambles, Parsley, pricking Nettle, Marigolds, Sanicle, Bugula, Mouse-eare, Burnet, Dendelion, Plantaine, the crops of Hempe, female Ferne, Bugloſſe, Gentian, Veruaine, Birds toong, ground Iuie, water Germander, Catmint, hearbe Robert, Cinquefoile, Tansie, all the Capillar hearbes, of each one halfe handfull; Damaske Raisins their stones taken out, Licorice, the seed and flowers of S. Iohns wort, the seed of blessed Thistle, of each an ounce, the three cordiall flowers, of each foure ounces; all these being thus carefully pickt, and made cleane, let be brayed verie throughly, after strained through a hairen strainer, with one pint of white wine: you must cause him which is thrust through to drinke of this drinke a little draught fasting, or one houre before he eat, and as much before his supper. If these iuices displease thee, in stead of braying, bruising, or stamping of the things aforesaid, you may make a decoction in common water, adding in the end of the decoction, white Wine, honey of Roses, and syrrup of dere Roses. In the meane time the wound must be cleansed with white Wine warme, and there must be layed vpon it a leafe of red Coleworts warmed at the fire, and reasonably greene: and there must care be had to keepe the wound from salt and thicke meat, from strong wine, great paine, and vse of women. *Inward wounds.*

To cause knobs to wast and goe away in any part of the bodie whatsoeuer, take the oldest and most mouldie Cheese that you can find, knead it with broth wherein there hath boyled a piece of fat Bacon or Lard a long time, make thereof a playster to lay vpon the place: or else stampe in vineger Conchula Indica with Myrrhe, apply it to the place, and you shall find a maruellous effect. Otherwise take nine pints of vrine, wherein boyle for a good while two handfuls of Baulme and Dent de lion in a pot of Earth verie close couered, and that so long, as vntill all come to a pint, after strayne out the hearbes in the liquor strayned out, put halfe a pound of Hogges grease verie new and neuer salted, foure ounces of Aqua vitæ, boyle them all together the space of halfe an houre, after put thereto the oyle of Pike and Rosemarie, of each an ounce, Quicksiluer the weight of two French crownes, mixe them all together, and stirre them well with a Spatull, and by this meanes you shall make an oyntment, with which you shall vse to chafe the members troubled with knots before the fire. *Knots or knobs.*

For haire that is fallen by the disease called Tinea, or otherwise: Rub the bare and bald place with a piece of dyed Cloth vntill it bleed, afterward annoint it with an oyntment made of Honey, oyle of Linseed, and the powder of small Flies, burnt vpon a tyle red hot: or with Mise dung brayed with honey: or with shells of Nuts burnt, powned and mixed with wine and oyle. *The falling of the haire.*

For vlcers that are hard to be cured, gather with linnen clothes spread vpon the grasse before Sunne rise in the moneth of May, the dew of the same moneth, afterward wring out the said linnen for to haue the dew, which you shall boyle and scum, and in boyling dip therein diuers bolsters or plegers of fine linnen, which you shall apply vnto these maligne vlcers: afterward, when you shall perceiue that these vlcers doe not continue any longer so foule and filthie, and that they begin somewhat to shew to haue faire flesh, boyle in this dew water a little Allome and Olibanum, and by this meanes you shall heale them throughly. Or else make a powder of the raw or burnt shells of Oysters, or of the dung of a dogge, which hath gnawed and fed vpon nothing but bones for the space of three dayes; 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 oyle of Roses annoint the Kibes: or else lay vnto the Kibes the rind of a Pomegranat boyled in wine. *Kibes on the heeles.*

For

Black and blew spots through blowes.

For the blewneſſe comming of ſtroakes, or otherwiſe, ſteepe in boyling water a cloth hauing ſalt tyed within vpon a knot, and with this foment the bruiſed place.

Wart.

To take away Warts or brawnie tumours in the ioynts, rub them with the milke of Tithymal, or apply thereunto the powder of Sauine, or of Hermodactilis mixed with Oxymel Squillitieum, or with the iuice of Marigolds : The dung of Sheepe wrought with vineger and made ſoft and applyed doth heale all hanging Warts.

Noli me tangere.

For the *Noli me tangere*, it is killed if that Nicotiana be applyed thereunto, as we will further declare in our ſecond Booke and 76 chapter.

Crab-lice.

To kill Crab-lice, make a decoction or Lee of the leaues of Wormewood, Aron, and Nut-tree in very ſtrong vineger.

Burning.

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 oyle of Nuts with water: or the yolke of an egge diſſolued in oyle : or Hennes dung tempered with oyle of Roſes: or moſſe of the black Thorne, the fineſt that you can find, 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 annoynt the places burned: or elſe take ſalt water or brine, dip therein a linnen cloth, and apply it vnto the burning: or common Sope, with honey and butter: or the iuice of an Onion : or the oyle of an Egge: or elſe diſſolue Allome, 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, beat them together with oyle of Nuts and Roſe water, adding thereto the remainder of ſuch water as Quicke lime hath beene quenched in, ſtirre them all yet once againe well together, and afterward let them ſtand and ſettle.

Ringwormes.

For Ringwormes, Scabs, and all manner of ſorts of Itchings, which happen in the hands, legs, and other parts of the bodie, take the water of a Smiths 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, annoynt it with the creame of Cowes milke. Or elſe take of Venice Turpentine two parts, waſh it fiue or ſix 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 yolke 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 Soot finely powdred, mix it with ſtrong vineger, therewith you ſhall annoint the place, hauing firſt rubbed it well, euen to the raiſing of redneſſe in the skin.

The Canker.

For the Canker, take honey of Roſes, Roch Allome, ſalt and white wine, boyle all together till the halfe be conſumed, and then ſtraine it through a linnen cloth, afterward keepe the water for to waſh the Canker. Some doe greatly allow and like of the diſtilled water of Cowes dung newly 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 bloud come, and afterward caſt vpon it the powder of the white of Hennes dung dried in the Ouen; or of fine Soot, mixt with ſtrong vineger.

To make the haire blacke.

To make any mans haire black: Take ſuch quantitie as you ſhall thinke good of Galls, powder them and put them ouer the fire in an yron chafingdiſh, and let them continue there till they become very blacke; then powre vpon them by little & little the oyle of Oliues, alwaies turning them to & fro, in ſuch ſort, as that they may drinke vp all the oyle, and after become drie againe, inſomuch, as that they being taken from the fire, may be pouned very well: whereunto adde of Vitriol, Roſemarie, *Sal gemma*, the drie earth whereof tyles are made, & Cloues, all theſe being likewiſe made in pouder. On the other ſide, boile in wine the rind of the Walnut, & of the Pomgranat, 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 powder: 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, and so keepe it for fiue or six houres after; in the end wash it verie well with water and wine, and drie it: the haire will abide blacke for fiue or six moneths.

Against the biting of a mad dogge,giue to eat the root of sweet Eglantine, foment the place with the vrine of a young infant, or with the grosse parts of the decoction of Rue,Figges,red Coleworts,and salt mixt with honey and butter. *The biting of a mad dogge.*

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 Ash tree pressed out with white wine, and let him apply vnto the bitten place,in manner 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 milke of the Figge-tree, or of Figges, or some Mustard seeds pounded with vineger: or else take the leaues of white Mullein, Auens, red Goose-berrie bush, of each a handfull, boyle them all in vineger & 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. *The bitings of Serpents.*

If it fall out that a Snake or any other Serpent be crept into the Farmers bodie, or into the bodie of any of his seruants, lying asleepe with their mouthes open in the Medowes, Gardens, or other places, there is nothing more soueraigne to force the same againe out of such a bodie,than to take at the mouth,with a Funnell,the smoake of a perfume made of some old shooe 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. *A Snake crept into the bodie.*

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

If any Rat,Spider,Flie,Waspe, Hornet, or other venomous Beast,by his sting or biting haue caused your flesh to rise, rub verie gently the offended place with the iuice of Houseleeke, and 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 verie hot. *The stinging of Spiders.*

To kill Lice, rub the place with the iuice of Broome,mixe it with the oyle of Radish,or of Iuniper, or with the decoction of Stauesacre: or else boyle within an earthen pot, well leaded, equall parts of Olibanum, and lard of Bacon, make them in forme of an Oyntment, passe them through a Searce, and keepe it afterward to rub the head withall, or any other place where Lice are. *Lice.*

For the danger ensuing of the eating of Mushromes,drinke with honey and vineger Hennes dung brayed, and you shall within an houre be healed of the heauinesse and strangling fits of the stomacke: or else drinke the lee made of the Vine branches with a little salt. *Mushromes eaten.*

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 humors which gather in the bodie, the wise huswife may prouide and make this purgatiue following: Take Virgins honey one pound,Rubarbe,or Sene,or Agarick,euen of any one of them, or all three made into powder, foure ounces, mixe this powder with the honey,and let it stand in the shadow sixtie daies in a pot well couered;stirre it euerie day,and take away the frothwhich you shall find on the top of it: the honey will keepe all the force of the medicine, and will cast vp in a scumme 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 rellish. 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.*

Chap. XIII.

Of Kine and Calues.

A cleane Cow-house.

FOr the better keeping of Kine, let the Huswife procure and cause her maids to ouer-looke oftentimes and 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 and fodder excepted, as the cleane and neat keeping of their houses: let them rub them along the backe, about the necke and head, and no more, with a wispe of Straw hard wrythen together, 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 stand and stinke, and let them cast Sand or Graueil vpon the floore, that they may haue the faster and surer setting of their feet. Let them not be put to the Bull before they be vpon their third yeare, nor any longer than vnto their twelfth yeare: for if they be put too sooner than they be growne vp to their full strength and growth, they will bring forth Calues halfe cast, small and little, weake and feeble. And againe, if you goe about to continue their bearing after twelue yeares, their Calues will not be so strong, nor of so comely a shape. Yet in our neighbour Countries, as great Britaine, and other places of like temperature, their Cattell will beare well till sixteene or eighteene yeares of age, and some till twentie, but not generally. You shall lead them thereto throughout all the time of the moneth of May, Iune, and Iuly, when the grasse doth most flourish: and againe, about this time they are chiefely set to goe a bulling, seeking for the Bull of themselues, without being led 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 Bulls backe. The profit which riseth by their taking of the Bull at this time is, for that they will happen about tenne moneths after (which is the iust 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 encreasing their milke, and vpon this occasion also their Calues shall be a great deale the better fed. To the end 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 contrarie, a good Bull for breed must be fat, well set together, and well meated, hauing for two moneths space before beene fed with Barley and Fetches. He must also be chosen more long than high, of a red haire, large betwixt the shoulders, strong legged, round trussed and bodied, broad breasted, short headed, broad browed, fierce countenanced, terrible to fight, blacke eyes, short hornes, long tayle, and full of haire. But in England and other places they neuer vse to feed their horned Cattell with Corne, for they find it of small or no profit, Grasse or Hay being euer sufficient: and though in France the red colour be euer most preferred, yet as *Serres* also affirmeth, the blacke is fully as excellent; for the red exceedeth but in prouing an extraordinarie vertue in the milke, but the blacke is euer the hardest, best flesht, best tallowed, and hath the strongest hyde. 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 nosthrils the tayle 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 of 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 yard 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

The putting of Kine to the Bull

The time of the yeare fittest for Kine to be put to the Bull.

Sirnes of a good Bull.

Feeding of Cattell.

A Cow with Calfe.

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 readinesse 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 twice a day in Summer, and once in Winter, and that not of Riuer or Floud 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 coldnesse might somewhat hurt them. It is true that the Cow will not refuse any water that is without fault, so that it be cleare; for she loueth cleare water especially, as the Horse, on the contrarie, that which is puddly and troubled, being a signe of his goodnesse, if so he tumble 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, and for some fiue or six 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 shall bring them forth when you would haue them sucke, and carrie them thither backe againe so soone as they haue sucked: And if you see, eyther 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 tongue if they haue not the Barbes, which is a whitish fleshinesse growing vnder the tongue, almost after the manner of the Pip: which (and if it be so) you shall take away gently, without slaying the tongue, with little nipping Pincers, washing the place afterward either with red Wine of it selfe, or with the infusion of Salt and Garlicke stamped together; 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 knowne by their skins, if they become hard and stiffe after the manner 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 Oyle of the setlings of the Lampe all ouer the bodie where the scab is seized. But as it is a great deale better to preuent diseases than 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 twice 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 Cow would haue a cleare water, as the Horse a troubled.

The Barbs vnder Calues tongues.

Lice and Scabs of Calues.

But to returne to the keeping and ordering of Kine, the huswife shall appoint times for the milking of them, as that they be milkt euening and morning at a conuenient houre, and when they be at red: That the Milke be strained so soone as it is taken, and that Butter be chernd with leysure, but not any losse: that the Cheese be well crasht, prest, and freed from their Whey; and especially, that her Pots, kneading Troughs, Strainers, Slices and Cheese-presses, and other implements seruing for the Dairie, be kept neat and cleane: and that none of her maids haue any thing to doe with either the Butter or Cheese when 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 yeares 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 shal be giuen them Hay small shredded and mingled with Branne, vntill they be come againe to their former stomackes and appetites. They must not be gelded either when it is verie hot or cold, or in the old of the Moone. Being more than three yeares old, they shall be put to the Neat-heard, to begin to prepare them for the Draught: and likewise she shall deliuer him her Kine with Calfe, and those which after nine yeares doe not bring forth any more Calues, for yet they may serue to draw in the yoake.

Kine.

To geld the Calues.

Furthermore, shee shall make much account euermore of the Cow which is of a meane stature, of a long bodie, a large flanke, foure or fiue yeares old, of a party blacke

The marks of a good Cow.

 colour,

colour, or ſpotted with white and blacke, her bagge great and ſide, a great bellie, broad betwixt the browes, a blacke eye, 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 verie hairie, a narrow iaw, a thick and groſſe muzzle, wide noſthrils, and ſniuelly, little and black lips, her haire gliſtering and thick ſet, her legges ſhort, her thighes groſſe and thicke, and her necke long and groſſe, her backe large and broad, her tayle long euen to the heele, her hooſes ſhort and euen, a broad breaſt, a great and groſſe brisket, and her dugges great and long. As concerning the diſeaſes of Calues and Kine, they ſhall be handled, as ſhall be ſaid hereafter in the Chapter of the Neat-heard.

The dung of a Cow made hot in the embers, being wrapped in certaine Vine leaues, or in the leaues of Colewort, and applyed 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-panne with the flowers of Camomile, Melilote, and Brambles, it diminiſheth the ſwelling of the Cods: applyed very hot vpon the places troubled with the Dropſie, it cureth them throughly: and applyed vnto any place ſtung by Bees, Waſpes, and Hornets, it taketh away all the paine.

Chap. XIIII.

The way to make greene Cheeſe, Butter, and other ſorts of Cheeſe.

Milke.

SHe ſhall be carefull, as well for the feeding of her people, as alſo for the gayning of the penny, diligently to ſet on worke her daughters and maid 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, ſhee muſt not make any account of that which commeth from the Cow after ſhee 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 nurſe their children, make no account of their firſt milke to giue it to them; the reaſons whereof you may learne in our Booke of the diſeaſes of Women.

The keeping of Milke.

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; in as much as Heat doth ſafegard and thicken the Milke, as Cold doth ſoure it and make it to turne by and by: and therefore to auoid this danger, it is good to boyle it, and thereupon to ſtirre it much before you let it reſt, if peraduenture you be not diſpoſed to keepe it three dayes or ſomewhat more. She ſhall know good Milke by his whiteneſſe,

Good Milke.

pleaſant ſmell, ſweet taſt, and reaſonable thickneſſe in ſubſtance, in ſuch ſort, as that being dropped vpon ones nayle, it runneth not off preſently, but ſtayeth there, and abideth round a good while. She ſhall not let her Milke be kept long, as aboue a day in Summer, eſpecially in Autumne and the Spring, in which ſeaſons, Milke, becauſe of the heat and temperature of the time, would be ſpoyled and preſently turned: but as ſoone as ſhe can, ſhe ſhal gather her Creame, greene Cheeſe, Butter, preſſed Cheeſe, Whay, and other commodities, which a good huſwife is wont to rayſe according to the time: although in Winter the Kine yeelding ſmall ſtore of Milke, as being then with Calfe, ſhe may gather three or foure meales together, which will not ſo ſoone be ſpoiled by reaſon of the coldneſſe of the Winter, which maketh the Milke to thicken preſently. Likewiſe at this time ſhee 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 price in Winter, neither yet ſo good and daintie as in Summer, Spring time, and 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.

She

She ſhall gather her Creame from the vppermoſt part of her milke preſently after that the milke is drawne from the Cow, and cooled a little: and with this Creame, to make Creame-cheeſe, ordinarily accuſtomed to be ſold in Summer, to be vſed at meetings of ſmaller account, or in the end of dinner and ſupper. The Italians with ſuch Creame-cheeſe, or Parmiſan, doe mixe fine Sugar well powdred, together with Roſe water. *Creame.*

The milke curded and thickned without Runnet, will make little Cheeſes, which the Pariſiens doe call Ionches. *Freſh or greene Cheeſe.*

The Normans doe boyle milke with Garlicke and Onions, and keepe it in veſſels for their vſe, calling it Sowre milke or Serate. *Sowre milke, or Serate.*

The Whay may ſerue for the feeding of the Hogs and Dogs, as alſo in the time of Dearth for ſuſtenance for the Familie, if ſhe boyle it but a little. *Whay.*

For to make Butter, ſhee ſhall reſerue the neweſt and fatteſt milke that ſhee ſhall haue, whereof ſhe ſhall gather no creame: and ſhe ſhall make account, of ten pounds of milke to make two pounds and a halfe of Butter. To make this Butter, ſhee ſhall beat or cherne it a great while in Veſſels made for the purpoſe, eſpecially whiles the times of greateſt heat endure, ſeeing ſuch heat 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 wee ſee brought to Paris from Britaine, Normandie, and Flanders. The Butter of a yellow colour is the beſt; and that of a white colour is the worſt: but that which is gathered in May, is better than either of the other. *Butter.*

As concerning the making of Cheeſe, ſhee ſhall chuſe 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 Cow, ſuch ſhall be put in Veſſels for to coagulate and turne to curds. The way to curdie it, is to mingle therewith of the Runnet, of a Lambe, Kid, or Hare, or the flowers of wild Thiſtle, or the ſeed of bleſſed Thiſtle, or the iuice of the Fig-tree, which commeth out of the Tree when one cutteth the greene barke thereof: or the leaues and hoarineſſe which groweth at the ſmall end of the Artichokes, or Ginger, or the inner skin of a houſe-Hennes ſtomack, 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 curds. But aboue all, the beſt and moſt principalleſt Runnet is the ſmall Cheeſlep bagge or ſtomacke of a young Calfe, not aboue three weekes or a moneth old, well waſht, ſalted, cleanſed, and ſeaſoned with Cloues, Mace, and a little Nutmeg, and ſo kept in a cloſe pot with Bryne, and ſo vſed according as occaſion ſerueth. The pot in which the milke is, muſt not be without ſome quantitie of heat 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 together, it muſt be put preſently into ſlices, formes, or fats, for it is profitable that the Whay ſhould run out, and ſeparate it ſelfe from the Curd. But chiefely, 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 folded vp, and aboue all, farre from being troubled with their termes. In like ſort, the people of the Countrey of Auergnac, which make great reckoning of their Cheeſe, doe chuſe the young children that are but of foureteene yeares of age, and thoſe proper, neat, and handſomely trimmed vp, not hauing ſcabbed or ſcuruie hands, neither yet of an vntemperate heat: for they thinke and perſuade themſelues, that ſuch filthineſſe of the hands doth hinder the full curding and ioyning together of the Cheeſe, and ſo doth make them full of eies. *The making of Cheeſe.* *To curd the milke.* *The beſt Runnet.*

If ſhe determine to drie, harden, and keepe them long, ſhe ſhall the more carefully looke to the ſtrayning forth of the Whay and cleare Milke, and after to ſet them in rowes vpon Shelues, Lattiſes, or Cheeſe-heights fit for the ſame, and that *Hard Cheeſe.*

withall it be in a cellar, or in ſome darke and coole place: or elſe to take them vp into ſome high place, hauing ſtore of aire; prouided alwayes, that the Sunne haue no power ouer the Cheeſe. She ſhall ſhift them euerie day vntill about the fourth or fifth day, at which time they will begin to caſt a flowre, as though it were the flowre of meale, and then ſhee ſhall caſt a little ſmall ſalt vpon them. The next morning ſhee ſhall turne the other ſide, 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 ſhee knoweth that they are ſomewhat drie, ſhee ſhall put them in another place, as vpon boords layd as it were vpon ladders: ſhe ſhall cleanſe and ſcrape them oft, and keepe her boords cleane alſo: and if by ſtriuing to keepe them long, they become hard and bitter, ſhe ſhall couer them ouer in Grauell, or in Barly flower, or in Cich-peaſe, or elſe ſhe 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 eat them, ſhee ſhall take away this vermine, and annoint them with oyle of Linſeed, or the droſſie parts of the ſame, which will preſerue them ſingularly well: or elſe ſhee ſhall put them in a great heape of Millet corne or Linſeed, which will keepe them freſh and coole in the hoteſt 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 clothes taken out, and ſet neere the walls of cellars vnder the ground vpon ſmall boords, hauing moiſtened them before with oyle Oliue, or Linſeed and vineger mixt together.

The goodneſſe of Cheeſe.

She ſhall iudge that for good Cheeſe which is fat and heauie, the meat of it cloſe and well compact, of colour ſomewhat yellowiſh, ſweet to taſt, pleaſant to ſmell, and nothing mouldie, 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 ſauorie 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, brayed and mixed with the decoction of a ſalt gammon of Bacon, and applyed in forme of a Cataplaſme, doth ſoften all the hard ſwellings of the knees.

Chap. XV.

Of Hennes.

The Hen-houſe kept cleane.

Baskets for Hennes to lay 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 Hennes laying.

AS concerning the ordering of Pullen, which is the chiefeſt thing that a good Huſwife is to regard, there muſt care be had that the Henne-houſe be euerie day made cleane, euen ſo ſoone as the 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 ſtraw and neaſts, and their Pearches and Ladders ſcraped euerie weeke: The roofe or vpper part of the houſe ſhut in euerie night at Sunne-ſet for feare of Fulmers, and opened euerie morning at Sunne-riſe: Their Water-pots to let them drinke at, muſt be kept cleane, and filled with cleane water euerie day, and that twice in Winter, and thrice in Summer: Let their water be cleare alwayes, 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 remoued farre from them the reſidence of wine or droſſe of the Preſſe, of whatſoeuer fruits, and from the place of their

haunt,

haunt, for such things keepe them from laying. And it further behoueth her to haue this care, as to see that throughout all the Henne-house there be neither Lath broken, nor any place of the walls having any Lome fallen either without or within, or any sheet of Lead lifted vp or raised, thereby to preuent the danger of Cats, Foxes, Weasels, Polecats, Fulmers, and other beasts, giuen to rauin abroad in the night: as also the Kite, Hen-harrow, and Owle, which sometimes will not let to swap into the very Brood-house to catch and carrie away the Chickens.

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 flye ouer walls, 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 not good to clip the wings of Cocks or Capons) you must fasten and set rowes of thorne faggots vpon the tops of the walls of the said Gardens and all other places elsewhere.

The wings of Cocks & Capons must not be cut.

The Brood-house shall be built aside from the Farme-place, farre off from the lodging of the chiefe Lord, because that such birds are loathsome, doe foule euerie thing, and spoyle whatsoeuer household furniture: turned toward the East, from the Winter and Northerne quarter, neere vnto the Ouen of the Kitchin, if it be possible, to the end that the heat thereof, which helpeth them to lay, and the smoake which is verie wholesome 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, and goe in againe at euening: it shall be shut at night, to the end they may nestle themselues 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 pretie ladders, by which the Pullen may flye vp into the window, and into their house, to roust and rest themselues for the night time. This Henne-house must be well layd with Lome, and smoothed both within and without, to the end, that Cats, Fulmers, and Snakes, and other dangerous beasts, may not come neere vnto the Pultrie: and that neere vnto this Henne-house, 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 Summer, 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 feet, for thus they would grow to haue paine in their feet, and to become gowtie. For this cause, you must set all along the Henne-house, a foot higher than the floore, and two feet 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 Henne-house, 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 bloud of Oxen and other beasts, killed onely for the Hide; afterward you shall cast a reasonable quantitie of Oates vpon the same, and you shall turne the said earth the vppermost lowermost: in a small time there will be engendred 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 bloud, and sowing of Oates thereupon, as at the first. Some to haue fat Capons, and of a pleasant flesh, when the Mulberries are in season, doe plant Mulberrie trees in their Courts: for Capons, and all other manner of Fowles, which feede vpon Mulberries, become maruellous fat, and of an excellent taste and verdure.

To euerie dozen of Hennes one good Cocke is sufficient: howsoeuer those of former daies doe allow one to euerie fiue; and he must not be of colour white, nor yet gray, but red, tawnie, or black; his body wel compact, his crest or combe very vpright, red,

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 verie white, his bill short, thicke, and crooked, his eye 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 legges verie scalie, thick, and short; his clawes short and fast; his spurs stiffe and sharpe; his tayle vpright, grosse, thicke, and crooking backward ouer his head.

The markes of a good Henne.

The tawnie or reddish Henne in like manner is the best, and that which hath the feathers of her wings blacke, though shee her selfe be not altogether blacke: for the gray or blacke colour is but little worth, because they be hard to bring vp, and sparingly giuen to lay egges; and yet moreouer, they be small, alwayes leane, vnhealthfull, and their flesh of small rellish. The stature of the Henne must be indifferent, her head great, her combe vpright and verie red, her bodie great and square, her necke thicke, and breast large. The dwarfe or little Hennes doe lay oftener than the other, but they are not so fit to be set on egges to bring forth Chickens. The greater Hennes are not so giuen to lay: wherefore Hennes of middle size are to be preferred before the other, foreseene that they haue large wings, and their bodies thick set with feathers: and if they haue fiue clawes as the Cockes, they are more wild, and not so tame as others. The Henne that hath spurs, spoyleth her egges, hatcheth not so ordinarily, and sometimes eateth the egges shee sitteth on. The Henne which is giuen daintily to affect and feed vpon the 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 wild Vine; for this doth cause such a roughnesse or edge in her as in those that haue eaten sowre fruits. The Henne that is too fat, or which hath the flux of the belly, layeth wind egges. The young Henne is nothing skilfull either to sit or to lead Chickens: wherefore you must fat the Henne with spurres, and the Chauntresse or crowing Henne, and her that scratcheth and alloreth the other Hennes, by clocking, as the Cocke is wont to doe; and that, by plucking first the greatest feathers of her wings, and giuing for to eat great store of Millet, Barly, and Paste, cut in gobbets, bruised Acornes, Bran mixt with pottage, the huskes of Rice, Pannickle, and Oates, or the crums of Wheat bread steept in the water of Barly flower, and to keepe her in a close place where she cannot stirre, and to pull the feathers of her head, thighs, and rumpe. Such Hennes thus fatted by the hands of a man, may be recouered at any time of the yeare, but the flesh is not of so good rellish as when they grow fat going abroad at their libertie: which thing happeneth and falleth out more commonly at one time of the yeare than at another, the verie right and naturall season of their chiefe fatting being in the moneths of Ianuarie and Februarie, for indeed in these moneths Hennes are nothing inferior vnto Capons. The Henne that is too fat, shall be made leane by mixing of Fullers earth with her water, and of the powder of a softened Bricke in her meat. And if she haue a loose belly, you must giue her for her first meat the white of an egge roasted and beaten in a Mortar with the double quantitie of Bulleis. And for the mad Henne, which breaketh her egges and eateth them, you must cast Alablaster vpon the yolke of an egge, so long as till it be hard therewith, and so to make this to serue (being fashioned like a shell) for her neast: or else to make an egge of Alablaster or Fullers earth, and to put it in her neast, and to leaue her no more but that only egge after she hath laid. Vnto a young Henne which falleth to clocking, you must take one of her small feathers, and thrust it through her nosthrils: for it is not for a young Henne to doe any thing but lay egges, and for the old to sit. Our Huswiues (in that point too seuere and iniurious) doe plucke away all their feathers from vnder their wings, euen all ouer their bellies, & doe therewithall cast them into the water to coole their heat withall; or else they keepe them fasting foure dayes together in a Chicken Cowpe. And if you be not disposed to keepe a Henne to brood, you must by and by, or within two daies after that she hath brought forth her young, let her forth again to haue the companie of Cocks, to the end she may forget them and begin againe to lay; and therewithall to rub the pulled belly of a great and fat Capon, and one that

The Henne with spurs.

The daintie-mouthed Henne

The outer-fat Henne.

The mad-brained Henne.

A young Henne clocking.

A young Henne good only to lay egges.

An old Henne is good to sit.

To take away a Hennes desire to sit.

Capons to brood and lead Chickens.

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is young, with ſtinging Nettles, and after to deliuer him the Chickens to brood and lead.

The Henne is ſubiect to the ſpots of the eyes when ſhe is old: to the rheume and diſtilling of watrie humors at her noſthrils, by hauing taken cold, or hauing drunke frozen water, or at leaſt ſuch as was too cold, or by reaſon of the Henne-houſe being left open in the night, or by hauing rouſled 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 looſeneſſe of the belly, when their meat is too thinne, or when they haue eaten ſome hearbes apt to worke the ſame, or when the Henne-houſe hath beene open all night: Vnto the Pip of the tongue, 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 venimous Beaſts, which haunt the dunghill and old walls, as the Scorpion, Snake, Spider, Shrew, Lizards, and Newtes of the wall.

The diſeaſes of old Hennes.

The Henne Pip.

Fleas and vermine about Hennes.

For the ſcab and inflammation of the eyes, you muſt bath them in the water of Purcelane, or in Womans milke: and for the ſpots, you muſt rub the eye with Sal Ammoniack, Cummin, and Honey, brayed together in a Mortar, and that as much 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 Hennes.

For the rheume, you muſt put a feather croſſe their noſthrils, and warme their water, and ſometimes chafe their feet, eſpecially little and yong Pullets, which are wont to be wrapt in cloth a certaine time for the ſame, or elſe in feathers, and then put into a pot, and ſet 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 noſthrils be ſetled in ſome place, as vnder the eyes, or towards their bill, you muſt launce the impoſtume gently, and giue paſſage for that to come forth which is therein contained, and put in place a little brayed ſalt.

For the rheume in Hennes.

For the looſeneſſe of the belly, ſome make them meat of the husks of Barly ſteept in wine, and incorporated with waxe; and ſome doe mingle with their water the decoction of a Pomegranate or Quinces.

For the looſeneſſe of the belly in Hennes.

And if that Pullein be coſtiue, eſpecially the younger ſort, they are prouoked with a wild oat: and ſome vſe to pull off the feathers of their rumpe, and vpon the inſide of their thighs, to the end that their dung may not be long detained and kept within their bodies, becauſe that ſo it might ſtop the paſſage: and as for Hennes, it is ſufficient to put honey into their water by themſelues.

For coſtiueneſſe in Hennes.

For the Pip, ſome vſe to waſh their bill with oyle wherein hath ſteept a cloue of Garlick: and ſome make them to eat ſtauefacre amongſt their meat: and for to cure the younger ſort, ſome put them in a ſieue made to dreſſe Fetches, or Darnell, & perfume them with Pennyryall, Organie, Hyſope, and Line: and ſome doe hold the head of the Pullet ouer the fume, the bill gaping: and in caſe of extremitie, to take it quite away from them, ſome doe vſe to open their bill, draw out their tongue verie 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 tongue; and after it is raiſed vp and rooted out, without any breaking of skin, they rub the tongue with ſpettle, or with a little vineger, or elſe they touch it with a bruiſed cloue of Garlicke.

To take the Pip from Hennes.

For fleas and vermine, they muſt be waſhed in wine wherein hath beene boyled Cummin and Stauefacre, or elſe in water wherein haue boyled wild Lupines.

Againſt Fleas and Vermine.

Againſt the biting of venimous Beaſts, you muſt annoint the place with oyle of Scorpions, and apply vpon it ſome Mithridate; and further, caſt ſome ſmall quantitie of Treacle into their water-pot, and cauſe them to drinke.

Againſt the bitings of venimous Beaſts.

For the danger of Beaſts, eſpecially of Cats and Fulmers, which come in the night time vnto the Henne-houſe to eat the Hennes and egges, old Writers do giue counſell to caſt at the entrie of the dore, and to ſcatter thereabouts, bunches of Rue, as alſo to put

Againſt Beaſts that eat Pullein.

put ſome tender ſprouts of the ſame vnder the wings of the fowle: or elſe to beſmeare about the walls of the Henne-houſe, and round about the window, the gall of a Cat or of a Foxe.

Againſt Foxes. Furthermore, to keepe Pulleine from Foxes, that they doe not eat them, it is good now and then to mingle amongſt their meat the fleſh of a Foxe ſodden and ſhred into verie ſmall pieces: for, as ſome ſay, their fleſh doth keepe and retayne a certaine ſmell thereof, which is the cauſe that Foxes dare not come neere vnto them.

The laying of Hennes. Hennes begin to lay in Februarie and March, and ſome of them in thoſe moneths being part of their firſt yeare. They which begin to lay at a yeare and a halfe, or at two yeres, are better to be liked: and then they muſt be verie well fed, and that ſometimes with Oats and Fenugreeke for to heat them. And if you be deſirous that they ſhould lay great egges (for commonly the fatteſt Hennes lay the ſmalleſt egges) mix and temper Fullers earth among their meat: or elſe put pownedBricke among Bran, and temper them together with a little wine and water, and make them an ordinarie meat thereof: or elſe make them all their meat of Barley, halfe boyled 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 young Nettles chopped and boyled with Branne, 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 cold 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 meat 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 Hennes to lay egges good ſtore, that is to ſay, in the ſharpe cold times of Winter, which thing you ſhall proue verie true by experience, if you make triall of it: or elſe to feed them with Earth-wormes, which will alſo cauſe them to lay egges in great number. You muſt not let them ſit preſently after their firſt yeare of laying: and when they are paſt three yeares old, you muſt eat 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 very much, you muſt change their Neaſts 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 moulting, you muſt not ſuffer them to goe out of the place wherein into 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 Hennes. It is vſuall to ſet Hennes the ſecond yeare of their laying, and ſo the third and fourth: and ſo let any ſet many Hennes at one time, and vnder their ſtraw ſome pieces of yron, 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 Pip and the monſtrous fruit. They are put there in the growth of the Moone, after the twelfth day of the new Moone vntill the foureteenth, ſaith *Florentine*; and *Columella* ſaith, from the tenth vnto the fifteenth, to the end that the Hennes may hatch in the next new Moone, for to that end they ſtand not in need of any moe daies than one and twentie. And the Neaſts of theſe Hennes muſt be made in the bottome of a Tunne or Pipe, to the end 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 Henne 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 layd ſince the ſeuenth of Februarie, and before the two and twentieth of September: for ſuch as are layd at any other time, are nothing worth, no more than thoſe which were firſt layd, or yet thoſe which were layd by the Henne without the help of the Cock: and there muſt alwaies care be had that they be odde, that is to ſay, in Ianuary fifteene, in March nineteene, and

after

after Aprill one and twentie. The greatest part of the inhabitants of Lyons doe admit of no other number than three and twentie. After the second of October they set not any more, neyther indeed ought they, if it be not in Ouens, according to the vse of the inhabitants of Maliha, and some of those of Beauceron: But Hennes 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 Hennes are small worth, and cannot encreate 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 Henne, or else of Ducks, then let them be put vnder the Henne some seuen or nine dayes before, and after adde thereto of her owne some such odde number, as hath beene spoken of before: But and if they be Fesants egges, you need not to set the Henne any sooner vpon them, then and if they were her owne; for they require no more time to be hatcht in: And if you would haue them all Henne-birds, then set such egges as are more round and blunt, for the long and sharpe-pointed ones are commonly Cock-birds.

To set egges of other birds vnder Hennes.

To haue Henne-birds or Cock-birds.

Some are carefull not to put one after another into the Neast, but set them in rowes in a Woodden Platter, and thence let them slide downe into the Neast verie softly. And care must be had, that neither Cockes, nor any other Hennes, may goe in to sit vpon them: and to that end twice euery day to set meat and drinke so neere vnto the Henne, as that shee need not rise for to feed her selfe; for if but for her meat shee 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 kind Henne. If the Henne 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 Neast.

A Ceremonie obserued in setting of egges.

The Hennes meat & drinke must be set within the thing she sitteth in.

There are some women that cannot stay to the end of the Hatching: but about the fourth day after the setting of the Henne, they will be heauing euerie one of them vp one after one to looke vpon in the cleere Sunne-shine, and if they see not bloudie streames or threads within them, they cast them out, and put vnder others in their places. And in like manner, at the one and twentith day, if they find that she stayeth from hatching, they take off the Henne. But good sitting Hennes will not returne any more to their Neasts, after that the egges haue been touched. Likewise the good Huswife sayth, That as for the egges which are vnder the Henne, 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 Henne. Such as doe any thing doubt that the egges are not all good, and that the Chickens cannot come forth by reason of the hardnesse 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 Henne againe. But you must not force the Henne to rise off the Neast in your thus doing.

The impatiencie of women.

To trie the egges that must be set.

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

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 dayes you must not giue them any thing to eat, but put them vnder some Henne that hath not manie, and which is not either of Partridge colour, or wild 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 soone as they be hatched, rather than any Henne; for by that meanes they will be better defended both from Cold and rauenous Birds, as also better fed: besides that, hereby the Henne will be the fitter to fall to laying of egges againe. It is true indeed, that there must choice be made of a sound and couragious 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

The Henne Pip.

and after to make him drunke with bread ſteeped in wine, and to put him vnder a basket made of Oſiers, with his brood of Chickens, and ſo leaue him there ſome time, to the end he may fall in loue with them. So ſoone as he ſhall be at libertie, hee will beare them vp, keepe them, lead them, and become a more fooliſh, doting, or true louer of them, than the Henne her ſelfe would haue beene: Howbeit, the naturall dame is verie carefull, and giuen to keepe them vnder her wings verie wiſely, without doing them any manner of harme or hurt. When as therefore they be two dayes old, you muſt crumble them ſome ſoft Bread and Cheeſe, or elſe ſome Barley meale, and Garden Creſſes, ſoftened and infuſed in wine and water, with a few of the leaues of Leekes chopped verie 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 dayes, they muſt be kept vnder a Cowpe with the Henne or Capon: and then at the end of thoſe dayes to let them runne about both leader and followers, giuing them ſtill the ſame nouriſhment to feed vpon. And if you haue manie ſitting Hennes that haue hatched at one time, giue and put the Chickens of the one vnto another of the eldeſt and moſt vſed to lead, or elſe to a Capon, as hath beene ſaid, and let the younger Hennes returne againe to the Cocke: but ſee that you put not aboue fiue and twentie or thirtie vnto any one Henne, becauſe ſhee will not be able to couer or brood aboue that number. Againe, there muſt good care be had, that the Henne 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 little ones cannot follow her into. Wherefore it ſhall be good not to ſuffer them to goe ſo ſoone to the Court-yard, but rather, for the ſpace of fortie dayes, to keepe them that they goe not from the place where they were hatched. You muſt likewiſe beware that the Snake doe not breath 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, Hartshorne, Galbanum, or Womens haire, for the fume or ſmoake of theſe doth driue them away.

To hatch Chickens without the heat of the Henne.

It is a paine to goe about to hatch Chickens without the heat of the Henne: 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 Ouen verie meanely warme, and vpon warme Hennes dung, which muſt be renewed euerie ſix dayes; and ouer and vnder them thus ſet, ſome doe put bagges of Feathers, and they muſt be ſtirred now and then: after the eighteenth day, they muſt be bathed in warme water; and the one and twentieth, they muſt be holpen to breake the ſhell. Againe, it may be done otherwiſe: The ſame day that you ſet a Henne (to the end that you may the better remember, becauſe it is not ſo eaſie to number the dayes as to tell the egges) you may take as manie egges as you haue ſet, and put them vpon bagges full of Hennes dung (well dryed, ſifted, and compaſſed about with Downe, or ſuch ſoft Feathers as are on the inſide of the thighes) and made after the manner of Neaſts. And againe, others doe make a bed of the ſaid Downe vpon the bagges, and vpon this bed they ranke their egges, as hath been ſaid, and after couering them with other Downe and bagges aboue, in ſuch ſort, as that the Downe and bagges lye cloſe round about, and euerie where touching the egges: which done, after three or foure dayes, 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 twentieth day (being ſuch time as the Hennes begin to picke the egge-ſhells) you muſt helpe to make way for this your brood to come forth, and after put them to ſome Henne that hath but a few. But there is nothing beyond and beſides naturall inclination and diſpoſition to be attempted in any thing.

The Henne will ſit all Winter as well as in Summer, if ſhee haue meat made of Branne, mixt with the leaues and ſeed of drie Nettles.

To know a good egge.

You muſt make choice of ſuch egges as are of blacke Pullets, as ſuch as are more holeſome, daintie, full, and ſubſtantiall than thoſe of other Hennes, by how much they

want

want of being so old: let it not be aboue two dayes old, let it be white and long, according to the common verse,

The egge is good, and for delight,
Thats 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 proue and know such as are good to be set.

The huswife that maketh account to sell egges, must in Winter keepe them warme vpon straw, and well couered; and in Summer coole in Bran, according to the aduise of old Writers: but (be it spoken vnder correction) I am quite of a contrarie mind; for the Straw is coole, and the Bran hot: Adde further, that egges kept in Bran in Summer 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 rellish also by that meanes. The Cellar is a good place to keepe them in both Winter and Summer. *How egges may be kept in Winter and Summer.*

I doe not intend here to make any discourse, which of the two was first made, the Egge or the Henne: 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*, than of *Hippocrates*, how the Chicken is made within the egge of the white, and nourished by the yolke, seeing that the yolke is of more easie digestion than the white.

As concerning the cutting of Cock-Chickens, it must be done shortly after that their dam hath forsaken them, and that they run not chirping after her, but begin to crow and to fall in loue with Pullets; for if they scape the first yeare and halfe, then there is no order to be 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 choice of such as shall serue for the benefit and leading of your Hennes, 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 geld Cockrels.*

Some men (as for example at Mans and in Bretaigne) doe put out their eyes, as they doe vnto Goslings, and giue meat of corne halfe boyled, and of paste well crushe and braked, and made into gobbets, and thus they become fat within fortie dayes 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. *To fat Capons. Capons of Mans and Bretaigne.*

As concerning other particulars, of the Henne, of the Egge, and of the Medicines which the Husbandman may draw from them for the good of his health:

The Henne will hatch Chickens of diuers colours, if shee sit vpon egges drawne with variable and diuers or painted colours: as also shee will hatch Pullets of verie pleasant colour to behold, if you make her tread by male Pigeons, or Partridges, or Feasants. To be briefe, you shall haue Pullets, Pigeons, Feasants, and such other kinds of Fowles of diuers colours, if you prouide aboue, beneath, and on euerie side of their Coypes, or other place where they make their abode, places of receit and couertures, of such colour as you shall wish them to be of. *Chickens of diuers colours.*

Hennes will lay great egges, if you pound Bricks, and mixe them with Bran and wine, bray them all very well, and giue them to the Hennes to eat: or else make a fine pouder of Brick, mix it with Barly Bran, & giue it them to eat. Some for the very same purpose do mollifie the Fullers earth that is red, and mix it among the Hennes meat. *Great egges.*

If by the space of foure dayes, or seuen at the most, you steepe an egge in verie 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 Violl 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 manner, an egge steept in Aqua vitæ for some space of time, doth quite wast and spend it selfe. *To make egges soft.*

How to keepe egges.

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 a burthen of them as ſhall be layd vpon him, without breaking any of them. Likewiſe this is a thing verie 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.

What egges will keepe beſt.

It hath beene obſerued of a long time, that the egges layd after the new of the Moone in the moneth of Auguſt, or in the wane of the Moone in the moneth of Nouember, as thoſe likewiſe which are layd on the day of the Nativitie, 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 ayre by the coldneſſe of the time: and in the other there is a moſt quick exhaling and expending of that which might be corrupted within the egge, by the heat of the time and ſeaſon then being.

The ſtone in a Capons ſtomack.

Some find within the ſtomacke of a Capon a ſtone, of the bigneſſe of a Beane, which maketh a man ſtrong and luſtie vnto the act of carnall copulation; and withall, maketh him louing, fauorable, and gracious amongſt women.

To roſt an egge without any fire.

Some hold it for an vndoubted truth, 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 Galls, Allome, and Vineger, and after that ſuch writing is dried in the Sunne, put the egge in brine that is verie ſtrong, and after boyle it and take away the ſhell, and there you ſhall find the writing.

An egge lifted vp into the aire.

The ſhell of the egge emptied all out, and filled with May dew, and layd forth afterward in the Sunne-ſhine at noone day, is eaſily lifted vp into the ayre without the aid or aſſiſtance of any other thing.

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

The applying of a Henne to draw forth venome.

A Henne ſlit in two, and applyed all hot vnto the bitings of venimous beaſts, draweth out the venime thereof: or otherwiſe, if you take and plucke the fundament of any liuing fowle verie bare, and apply 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 Henne hath a naturall contrarietie againſt poyſon. And this may further be knowne, becauſe that Hennes doe eat venimous things, as Toades, Vipers, Snakes, Aſpes, and other Serpents, without their taking of any harme thereby.

The innermoſt skin of the Hens ſtomack, againſt the flux of the belly & grauell.

The inward membrane of the Hennes ſtomacke or maw, as alſo of a Capons, dried and powdred, is a ſoueraigne thing againſt the flux of the belly, grauell in the reines, and difficultie to make water.

The broth of a Henne good to looſen the belly.

The broth which is made of a Henne, or old Cocke, is good to looſen the bellie: and yet more effectually, if one ſtuffe a Henne with Mercurie, Germander, wild Saffron, and ſuch other hearbes. Alſo the broth of a Henne or Cocke is ſingular againſt euerie diſeaſe, if ſhe be ſtuffed with hearbes appropriate and fit for the cure of the ſaid diſeaſes.

The ſtones of a Capon.

The ſtones of a Capon, nouriſhed and fed with meat ſteeped in milke, are ſoueraigne for the ſpeedie reſtoring of them which are worne away and conſumed by continuance of long ſickneſſe.

The fat of a Henne.

The fat of a Henne 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 cold.

The gall of a Henne.

The gall of a Henne or Capon dropt into the eye, doth take away the ſpots of the eyes, if you mixe it with the water of Eye-bright.

Henne-dung.

The dung of a Henne dried and finely powdred, and applyed to the eyes which haue loſt their haire, cauſeth the ſame to come againe, if you mixe it with honey, or oyle of Linſeed: If it be tempered with oyle of Roſes, and applyed, it is good

against burnings: being brayed with vineger and honey, it cureth within an houre such as are neere strangled by eating of Muthromes, for it maketh them to vomite a thicke and flegmatike humor. A Physition in *Galens* time did cure all manner of old Collickes, giuing the sicke to drinke of this dung with Hypocras made of honey and wine.

A hard rosted egge eaten with vineger stayeth the flux 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, applyed vnto burnings, doth quench and extinguish them. *The yolke and white of an egge.*

The white of an egge beaten, and with the powder of Frankincense, Mastick, and Galls applyed vnto the browes, doth stay the bleeding at the nose. *The white of an egge.*

The yolke of an egge swallowed alone, stayeth the Cough, and such other distillations as fall downe vpon the lungs and other parts of the breast. The yolke of an egge, which is layd in the full of the Moone, doth cleanse and take away all manner of spots appearing in the face. The thin membrane or skin which is on the inside of the egge-shell dried, finely poudred and mixt with the white of the egge, doth heale the clifts of the lips. The egge-shell made into ashes, and drunke with wine, doth stay the spetting of bloud, and is good to whiten and cleanse the teeth, to comfort and incarnate the gummes. The egge-shels, out of which there haue come Chickens, being poudred and mixed with white wine, doe breake as well 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 Tyle well poudred, and Bitumen, maketh a Cement verie excellent to glue and ioyne together againe the broken parts and pieces of Glasses. An egge spread vpon wood, or any kind of garment, doth keepe the same from the burning of the fire. *The yolke of an egge.*

Chap. XVI.

Of Geese.

THe Countrey Farme being for the most part vnprouided of the benefits and easements of water, especially running streames, is not so fit to breed and nourish Geese: except for priuate commodities sake it fall out, that the Farmer doe make him some Fish-ponds or standing Lakes of his owne, and at his owne proper costs and charges: For the Goose, as well as the Ducke, doth loue to swim, and to coole, plunge, and tumble her selfe euerie day; neither doe they tread almost any where else but in the water. There is great profit, and there is great losse also thereof: profit, because the charge of keeping or feeding them is not so costly, as their watch and ward is good and gainefull; being indeed better than that of the dogge, as hath beene shewed long agoe by the Geese of the Capitoll in Rome, who awaking the souldiors and standing Watch, were the cause that the enemie was repulsed and driuen backe: Againe, she declareth when Winter draweth nigh, by her continuall squeaking and crying: shee layeth egges, hatcheth Goslings, affoordeth feathers twice a yeare, for the Bed, for Writing, and for Shafts, 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 young siences of Trees, the hearbes of the Garden, and the shoots of Vines, as also iniure and hurt the Corne when it is shooting and putting forth his stalke, as well by breaking it, as by dunging vpon it: in such sort, as that in the Countries where wild Geese (which are fowles keeping together in flocks as well as Cranes) doe make their greatest and principall haunt, as in Holland, Heynault, Artoys, and other where, there is found sometimes a great piece of Corne all wasted and destroyed in lesse than halfe a day.

Geese loue to bath and tumble themselues in the water.

The Goose is a bird of great profit and disprofit.

Wild Geese.

day. And the houſe or tame Geeſe doe no leſſe harme, if they be let alone and ſuffered to do it; for they pull vp the corne by the root: beſides that, where as they dung, there will nothing grow for a long time after.

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 goodneſſe: notwithſtanding the white doth abound more in laying of egges than the others, and hath alſo a better fleſh; and it is good to make choice of ſuch a one as hath the knee, ioints, and ſpace betweene the legges great and large. The Gooſe goeth ouer her laying time thrice a yeare, if ſhe be kept from ſitting and hatching: but indeed it is a great deale better when ſhe is ſet vpon egges, becauſe the young ones thereby brought forth doe nouriſh better than the egges, as alſo doe encreaſe the flocke: And at euerie laying time, ſome lay twelue egges and moe ſometimes, others but fiue at the firſt, foure 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 do 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 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 egges, they will begin to ſit ſo ſoone as they haue their full number: but and if you take them away as they be layd, 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.

The memorie of a Gooſe.

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 be 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 ſtraw whereupon ſhe ſitteth ſome Nettle roots, 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 twentie dayes at the moſt. And neere vnto the place where ſhe ſitteth you ſhall place ſteeped Barly in ſuch quantitie, as that ſhe may take it out of much water: for ſhee loueth not to leaue her young ones, for ſometimes ſhe will rather die for hunger; and to the end alſo that ſhe may not ſtand in need to ſtirre or rayſe her ſelfe, except a verie little for to feed, ſeeing that thus her egges might take cold. And furthermore, call againe to mind that which hath beene ſaid of the Henne: you may alſo ſet Hennes vpon Geeſe egges, 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 tenne daies ſhut vp with the Gooſe, and be fed within with Barly meale tempered with Honey, Bran, and Water, and now and then with Lettuces and tender and new Sow-thiſtles; after that, with Millet and Wheat ſteeped and ſoftened: and at the terme of theſe daies to acquaint and accuſtome them to the Medowes with their dame; but let them be fed before they goe thither: for this bird is ſo rauenouſly giuen, as that through ſharpeneſſe in their hunger they pull the graſſe and young ſprouts of Trees with ſuch force and violence, as that ſometimes therewith they breake their owne necks. They muſt be kept from Nettles & Pricks, from the Bay tree and Mugguet, for they be bane vnto them: in the houſe, from Wolues and Foxes, Cats and Weaſels.

How to fat Goſlings.

Goſlings intended to be fatted, muſt be choſen when they be foure moneths old, and then the faireſt and greateſt muſt be choſen. They muſt be put in a Cowpe in ſome Cellar vnder ground, or in ſome darke and warme place, where the younger ſort is to be kept thirtie daies, and the elder ſort two moneths. They muſt haue giuen them thrice a day Barly and Wheat meale tempered with Water and Honey, for the Barly maketh the fleſh white, and the Wheat maketh them fat, and maketh a great liuer. Some doe make them meat with new or drie figges and leauen, and giue them drinke

drinke aboundantly, vsing to rowle their meat all ouer in Bran. Others pull the feathers of their head and belly, and also the fat feathers of their wings, and doe also put out their eyes for to fat them: Aboue all things, you must not pinch them in their meat and drinke, because they are great eaters, and giuen much to drinke. Thus you shall haue them fat at the most within two moneths.

The common meat of Geese, is all manner of Pulse tempered with Bran and warme water. Manie doe giue them nothing but Bran somewhat grossely boulted, and Lettuces, Succorie, and Garden Cresses, for to get them an appetite: and they set them this meat 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 anie forbidden places, as also out of the Nettles and Briers, as also from feeding of Henbane, which some call the Goose-bane, and from Hemlockes, which set them on such a deepe sleepe as that they die therewithall. *Meat for Geese.*

Ancient Writers haue not permitted moe than three Geese to one Gander, but we doe freely allow sixe, and cause to be taken from them the Downe or soft feathers on the inside of their thighes, and the great feathers of their wings to write withall in March and September: for the quils of the dead Goose are not so fit for all vses, no more than is the wooll of slaughtered sheepe, or those which die of themselues. And seldome doe we see much fewer than thirtie Goslings in one roome, howsoeuer our predecessors would not put anie moe than twentie together, for the greater doe beat the lesser, and hurt them: and for this cause they must be put into the Goose-house, 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 verie small, for their house must be alwaies drie, and oftentimes made cleane for feare of vermine. *The quills of dead Geese are not so good as those of the liue.*

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

The Gosling, though she be of hard digestion, in as much as she is a water-fowle, and also abounding with superfluities; yet indeed the Goslings, which exceed not two moneths old, are verie much commended in the Spring time by reason of their daintinesse, as the old are in Winter stuffed with great Chesnuts: her liuer also is of verie pleasant tast and eating.

The grease of Geese is profitable in this point; if it be mixt with the iuice of an Onion, and dropt into the eare, it assuageth paine, and draweth out water. The Goose tongue 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 onely prouoke carnall copulation, but also make apt to conceiue. The dung of Geese dried, powdred, and taken in a morning the weight of one dramme with white Wine, doth throughly cure the Iaundise, if it be continually vsed for the space of nine dayes. *Goose grease.*

Chap. XVII.

Of Ducks, Drakes, Teales, brant Ducks, water-Hennes, small Ducks 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 Duckes and other birds liuing in the water: And neere vnto the said 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 & industrie to be vsed *A place for Ducks to sit in.*

vſed about theſe fowle, indeed there is no ſuch need, except it be for the keeping of them from Cats and Weaſels, Kites, Eagles, Vultures, and Serpents, which are verie noyſome vnto them. In the place of their haunt they muſt haue ſome Corne caſt, Pulſe, and the droſſe of the Riddle or Searce muſt be caſt about the edges of the Pond: and alſo within the ſame, to cauſe them to be pudling in the myre, 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 indeed they will eat 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 Neaſts to lay in and to ſit, they make themſelues: and there is no care greater than this, namely, to know their haunt, eſpecially that of the wild ones, in or about what place of the Ponds they vſe, that ſo you may take their egges to put vnder ſome Henne to ſit them, thereby to make them tame: for the fowle that is thus ordered will be better than that of the yard, and which ſtirreth not out of the Court, or from about the ſides of the ſtreets to tread.

The ordinarie food of Ducks.

The eggers of Ducks ſet vpon by a Henne, are better than if they were hatched by the Duck her ſelfe.

To take ſuch wild Ducks as are about your Ponds, 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 root and ſeed of Henbane a good quantitie, and lay it to ſteepe in a baſen full of water a whole day and a night, afterward put thereinto Wheat, and boyle all together vntill the ſaid Corne be well ſteept and ſwelled, afterward you ſhall put of the ſame Corne in the ſaid place, for the wild Duckes will runne vnto it, and as ſoone as they ſhall haue eaten it, they will fall downe all aſtoniſhed and giddie. This kind of fowle is made fat in ſuch manner as the young Geeſe, that is to ſay, with the ſame food; onely it remaineth, that you ſhould giue vnto them, beſides that, the ſmall of the fiſh, and ſo you need not to cowpe them vp: and as for your common ones, the more you ſuffer them to runne, the better it is for them.

Wild Ducks may be well taken when they are drunke.

You may make your profit of this bird, in as much as the fleſh thereof is very pleaſant to eat, eſpecially about the necke and breaſts, the feathers thereof are ſmaller, better, and more wholeſome to ſleepe vpon than thoſe of Geeſe. She layeth egges in great quantitie, but not ſo good or delicate as thoſe of the Hennes; but yet of vſe to make Cakes, fried Meats, and other daintie Deuiſes: adde hereunto, that you may ſet them vnder Hennes.

The bloud of Ducks.

The Drake cureth the Collick.

When this bird trimmeth her feathers with her bill, it betokeneth Wind. Alſo ſome hold the bloud 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 Collicke: inſomuch, that ſome ſay, that this diſeaſe thus cured, returneth vnto the Drake, and that in ſuch ſort, as that hee dyeth of it.

Teales.
Young Ducks.
Water Hennes.
Small Ducks.
Woodcocks.
Curlewes.
Birds of a double life.

Teales, young Ducks, water-Hennes, and ſmall Ducks of the Pond, will neuer be made tame, but otherwiſe you may more eaſily take them than you can the wild Geeſe. We may ſay as much of the Woodcocke and Curlew, and other birds haunting the Water and Riuers, and liue notwithſtanding vpon the Land: for which cauſe they were called by men of old time birds of a two-fold or double kind of liuing and feeding.

Swannes.

Valentia the vale of Swans.

Swannes haunt and loue to reſort to ſome particular places onely, as in watrie, wandring, and ſolitarie places. There are great ſtore to be ſeene in ſuch places towards Tours, Angouleſme, Coignac, the Riuer of Sharant (which is reported to be floored with Swannes and paued with Trouts) Sameure in Fraunce, as alſo in Flanders, and towards Valentia, which ſome ſay to haue beene, in that reſpect, called the Valley of Swannes, and may be made tame, and may be put either in Ponds or in Fennes, but indeed they deſtroy and ſpoyle verie much fiſh. Sometimes they feed vpon the greene Corne, as the Goſling or wild Gooſe, and doe make great ſpoile and

waſt

waſt therein. It is ſufficient for two paire to take their pleaſure in your Pooles, or foure, if they be verie great, and one paire onely is ynough in your Fiſh-pond: and they muſt haue a houſe apart in the Orchard or Garden couered ouer a little, and free from diſturbance, often made cleane and refreſhed, for they defile verie much. If they haue not ynough whereon to feed in the place of their abode, you muſt caſt them ſome ſoftened bread, or ſome of the ſmalleſt fiſhes. This is a great eating fowle, and chargeable to be kept: he maketh his Neaſt himſelfe, and hatcheth but once a yeare, and three egges at the moſt at a time, but he is a verie beautifull and pleaſant bird. There is a certaine kind of Swanne which hath his right foot diuided into fingers, and faſhioned with nailes and clawes or tallons, as birds of the prey haue, whereupon in ſtriking into the water, he catcheth and footeth his prey, but his left foot 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 Abbey of Iuilly neere Dampmartin, in the yeare 1554. This kind of Swanne feedeth no where but in the water, and vpon his prey, and is altogether wild, and cannot handſomely be tamed: but the common Swanne is not ſuch a one. *How manie Swannes are ynough to be together.*

Socrates in *Plato* ſaith, that this bird is dedicated to *Apollo*, becauſe of the gift of diuination which he hath, by which he foreſeeth his death, and ſingeth verie ſweetly 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 onely foreſee his owne death, but alſo the death of men, eſpecially when he appeareth in ſuch places as he was not wont to haunt: Witneſſe hereof is S. *Bartholomew* his day in the yeare 1572, two or three dayes before which were ſeene manie Swannes, flying, ſwimming, and diuing in the Riuer of Seyne, betwixt S. Clou and the Port of Nully.

Cranes are not much vnlike to Swannes, and are not birds of continuall haunt, but yearely remouing 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 ſeed time: and although they doe addict themſelues vnto watrie places, yet they feed, for the moſt part, of that which the drie land yeeldeth, and not of things affoorded by the water, for they liue and feed vpon Corne as doe the wild Geeſe. There is no cauſe why you ſhould make any great account of the Crane: for although hee ſtay a certaine time with you, yet hee layeth not anie moe than two egges all the yeare long. Wherefore if you be willing to keepe of them, you may doe it rather to pleaſe your ſight withall, than for anie hope of encreaſe, for they neither lay nor ſit anie moe than two egges. And further, their fleſh is of a verie hard digeſtion, eſpecially if it be new killed: but if you will eat it, ſtay ſome time after the taking of them, and hang them vpon the arme of ſome Figge-tree, that they may grow tenderer: Alſo eate them rather a long time after they haue beene dreſſed, than whiles they are yet warme. When you ſee them flye aloft in the Ayre, without making anie noyſe, then looke for faire weather: but and if you ſee them reſt themſelues vpon the ground, be ye aſſured that it will be raine. *Cranes.*

If your Farme be neere vnto mariſhes and places, where Snakes, Lizards, Adders, and other ſuch like Beaſts abound; you may ſet vp ſome ſmall Spire or Turret about your houſe, or plant vpon ſome piece of high mounted ground ſome well-ſpread Tree, of a great height, for the alluring of Storkes to the ſame, that they may helpe to free your houſe of thoſe ſaid venimous beaſts, for they will kill them to feed their young 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 be packing into another Countrey. Notwithſtanding, there are ſome, which not hauing beene diſturbed in the time of their ayring and bringing vp of their young ones, doe euerie yeare repayre to their wonted ayres, and that by a long flight out of a farre Countrey, and doe ayre and neaſt themſelues willingly alſo in the tops of high Towers, not frequented, *Storkes.*

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as iudging the place to be such as will not suffer any man to doe them annoyance. And in the meane time you need not take any care of their Neast, laying, sitting, or feeding, for they be birds carefull ynough of themselues, and not needing the helpe of any other, and which doe come and goe in such sort as one cannot perceiue them; in such sort, as that we may rather see them when they be commen, than foresee their comming, for as much as their comming and going is in the night. Some doe thinke that they haue no tongue; make no account of them for to eat them, seeing they are of a verie euill iuice and venimous feeding: and yet this good is in them, that hee which shall haue eaten of a Storke, shall not haue his eyes bleared or running all that yeare. It is obserued in this bird, that the young doe feed the old that breed them, when they cannot flye any more, nor get their prey.

Chap. XVIII.

Of Feasants.

Hennes of Numidia.

IT is a point of great curiositie to keepe Feasants, which *Columella* calleth Hennes 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 bird 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 ayre, and where the Sunne giueth. And euerie seuerall bird must haue her owne roome: and yet there must be but one dore vnto their Henne-house for the cleansing thereof and giuing of them meat. The rest of their house shall be all open vpon the fore-part, and yet in such sort, as that it shall be sure and fast, by being thick latted, and of clouen boords, about the height of a fadome below, and verie well couered aboue.

Feasant Cocks and Hennes not so easie to make tame.

Feasant Cocks and Hennes are hard to tame, if they be not so hatched, or else taken within the yeare: for the elder sort grow sullen and malecontented, and doe accord and buckle themselues either to lay or sit. And as for the young, 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 ayre, and that such a one as is not like to that where they were taken. There must be one Cocke to euerie two Hennes. The Henne 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 layd twentie, and after she sitteth them all together, or else fifteene of her owne, and some others of another kind, if you put them vnder her: and she sitteth thirtie dayes; and in the time of her sitting, you must vse her with the like diligence that you doe the Henne: but this must be all within her owne house. The young ones being hatched, shall be fed with flower of Barly boyled and cooled, and afterward with the flower of Wheat: and sometimes you shall mix herewith, 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 Henne is.

To fat Feasant Cocks and Hennes.

Men of old time were wont to fat their Feasant Cockes and Hennes for Feastiuall dayes, or Banquets and Feasts onely, and not for brood, 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 Barly tempered with water, of ground Beanes, and of cleane Barly, of whole Millet, of Turnep seed, and Linseed boyled and dryed, mixt with the flower of Barly: and for to heat and cleanse their stomackes, they gaue them Mustard seed for fiue dayes, and so fatted them vp in their Cowpes for threescore dayes.

This is the thing that diuers Cookes of Paris, with certaine other rich Victuallers, doe know verie well to doe: and they must (as saith *Columella*) giue them their meat

meat to eat, to the end they may be fat when they are vſed in Banquets: for but few of theſe wild Feaſant Hennes doe giue themſelues to lay and beare the yoake of ſeruitude both together.

CHAP. XIX.

Of Peacockes.

THe Peacocke is a bird of more beautifull feathers than any other that is: he is quickly angrie, but he is as farre off from taking good hold with his feet: he is goodly to behold, verie good to eat, and ſerueth as a watch in the inner court; for that hee ſpying ſtrangers to come into the lodging, he fayleth not to crie out and to aduertiſe them of the houſe. It is true that he is not kept with a little coſt and meat, being a great eater, and quickly digeſting his meat: noyſome to the houſe, for that he ſpoyleth the Gardens, if there be not ſome little Medow ground for him to frequent: hee breaketh the roofe and high place of the houſe: And the Cocke being ouer-ranke by nature, doth breake the Hennes egges, thereby to keepe her from ſitting, that ſo he may the more freely enioy and vſe her. The Cocke liueth a long time, as from twentie to fiue and twentie yeares, but the Henne ſomewhat leſſe, both the one and the other ſomewhat troubleſome to reare and bring vp whiles they be young, but they need 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 ayre, and that is the cauſe that they are not brought vp in manie Countries of France, but with much adoe. The place where they moſt abound in all the Countrey, is toward Liſieux in Normandie, for from thence there come great numbers to Paris, for great and ſumptuous Banquets and Marriages: There they make them fat with the droſſe of Cyder and Perrie.

The Peacocks walke.

People of old 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 doe them; which was alſo the drift why our auncient predeceſſors tooke the ſame courſe: but wee, which make not ſo great account of them, are content to keepe them in ſome roome ouer the Hennes, euen in the higheſt part of the Henne-houſe, for they loue to rowſt on high, and in an open ayre, ſitting verie often for that cauſe vpon trees, but wee prouide them ſome place below whither to repaire in the day time. This place muſt be kept verie cleane, and looked diligently vnto, euen as the Henne-houſe, for this bird is ſubiect vnto the ſame inconueniences and diſeaſes that Hennes be, and muſt haue the ſame remedies adminiſtred vnto them. The place of their abode and haunt muſt be ſtrewed with Straw, or greene Graſſe, for the Hennes doe lay but ſeldome, ſitting downe low, as is manifeſt, in that her egges are found oftentimes dropt downe from her vnder the Pearch: and this happeneth by their falling from her as ſhee is aſleepe. Theſe birds bring foorth verie well after they be three yeares old; but before nothing, or verie little.

The diſeaſes of Peacocks.

The nature of Pea-hennes.

The ſitting of the Pea-henne.

The Pea-henne hath three ſeuerall times or ſeaſons of laying in the yeare: but ſhe that is ſet, hath but one, and paſſeth ouer her other times in hatching and leading of her young ones. She beginneth her firſt laying time at mid Februarie, and layeth fiue egges one after another: at the ſecond, ſhe layeth foure or three: and at the third, three or two. If the Cock and the Henne tread not, you muſt bring them to it by ſuch food and meat as wil ſet them in heat, as with Beans roſted in hot aſhes. And to know when the

the Cocke is in his pride or heat, you need no other signe than his viewing of himselfe, and couering of his whole bodie with the feathers of his tayle, and then we say he wheeleth.

A Peacock of a white colour.

When the Pea-henne sitteth, she withdraweth and hideth her selfe from the Cock in the most secret place she possibly can; for he ceaseth not to seeke her, by reason of his excessiue rankenesse and lustinesse 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 shee sitteth, shee be couered with a white Linnen cloth, shee 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 ouer-layd or garnished with some white Cloth or Paintrie, to the end that whatsoeuer shee looketh vpon while shee sitteth, may be of a white colour. At the end of thirtie dayes, when the young ones are hatched, and the Henne diligently fed in the place where shee did sit them (as wee haue said of the Henne) she must be put vnder a Cowpe in some place where the Cocke cannot come; for hee hateth and hurteth his young ones, vntill they be growne to haue a coppell vpon their heads: and at such time as this is growing out of them, they must be kept verie warme, for then they be verie sicke, and for the most part die.

The feeding of yong Peacocks.

You must feed the young ones the first day with Barly meale tempered with wine in manner of thicke pottage: and for the thickening of it, some put thereto soft Cheese, well kneaded, pressed, and purged from Whay, for Whay will hurt them greatly. Sometimes they must haue Grashoppers giuen them, their feet pluckt away, Weesels, Spiders, and Flies for their Physicke; for they driue away vermine naturally, so that there is scarce any found where they haunt. After six moneths they eat boyled Barly as the dam doth, and are suffered to runne abroad: but euen then they must be kept from cold and raine, for they chirpe and hang the wing by and by, especially in this Countrey, where they are hard to bring vp, if they be not hatched by mid Iune: for when Autumne doth find them verie young, they doe neuer hold out Winter.

The laying of Pea-hennes.

They which will haue the Pea-hennes to hold their three seuerall times of laying, must set their first egges vnder Hennes that are great, well gouerned, and old, and that in the beginning of the growth of the Moone, that so the Pea-hennes may hold on their seuerall courses of laying. And as wee haue alreadie said in the feeding of Hennes, there must be put vnder the Hennes some fiue of the Pea-hennes, and nine of her owne: after the tenth day, the nine Henne egges shall be taken away, and other nine put in their place; by this meanes you shall find, by the end of thirtie daies, that all will be hatched together: And thus you shall vse manie Hennes at one and the same time. And seeing the Pea-hennes egge, for the greatnesse of it, cannot be well turned by the Henne, you shall turne it your selfe verie softly at such time as the Henne is a feeding, and marke with ynke the place you leaue vppermost, that so you may know thereby whether the Henne 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 Henne, and the young Pea-chickens to a Pea-henne, and see that the Henne leading her brood, do not haunt where the Pea-henne and her Chickens do come, for so she would leaue her owne, for the disdaine and iealousie she conceiueth in seeing the faireness and greatnesse of the others.

The diseases of Peacocks.

Peacocks are verie sicke when they moult, and then they must be heartened with Honey, Wheat, Oates, and Horse-beanes: They are verie hot in the Dog-dayes, so that then you must not let them want fresh and coole water: and euerie Cock would haue fiue or six Hennes for change, for he is grieued at them that are readie 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 Summer a day before you eat him, and in Winter foure daies, and hang some heauie thing to his legges, or else tye him vpon some figge-tree staffe, because the wood of the figge-tree hath vertue to make flesh tender

that

that is tough and hard: The rosted flesh of a Peacock is well kept a whole moneth, and looseth nothing either of his smell or good rellish: The dung of Peacockes is verie soueraigne against the diseases of the eyes, if it may be found: but the Peacock so much enuieth the good of man, that he eateth his owne dung, for feare that any man should find it.

Chap. XX.

Of Indian Hennes.

Indian Hennes good coffers to burie Oats in.

WHosoeuer he was that brought vs these birds from the Island of India, lately discouered by the Spaniards and Portugalls, whether wee call them Cockes or Peacockes of India; hath more fitted and prouided for the tooth than for any profit: For they may rightly be tearmed Cofers to cast Oates into, a deuouring gulfe of meat, and wherein there is no other pleasure to be taken, but onely in their crie and furiousnesse, when they are come to be great ones; or continually chirping whiles they be little: besides that, both the one and the other are ill-fauoured and ougly to behold, for the deformitie of their heads; for the male hath no combe, as our Cockes, but in stead thereof a red fleshinesse, and vnder his chinne a great wide and long throat, which swelleth and changeth into manie 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 goodnesse in the flesh of a Peacocke.

That a Peacock is better meat than a Turkiet.

What meat is fit for Turkies.

The meat fit for this kind of Bird, is the same that is good for Hennes, and so made, and with like diligence: and because his propertie is to be abroad, to feede vpon Grasse, Wormes, and Hearbes, therefore it remaineth that wee set downe what is required ouer and aboue: And the Farmer may well say, That looke how manie Turkies he hath in his yard, euen so manie Mule Colts hath he in respect of their feeding. Their ordering is lesse troublesome than 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 ayre: but they eat vp and make great wast in Gardens, and are filthie as Goslings, and therefore some must be readie to make them cleane euerie day. In Winter they must be set in a warme place, and drie: their pearch must not be aboue eight or tenne foot from the earth, because they doe not flye high.

The times wherein Turkies doe lay.

As concerning their laying and sitting, it is altogether like to that of the Peacockes, and their egges may as well be set vnder Hennes, and ledde afterward by the same, whilles the Turkie Hennes doe accomplish their seuerall times of laying.

The diseases of Turkies.

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

Turkie egges.

The Huswife shall not make anie great account of Turkie egges; at least, hee that loueth his health, shall not esteeme of them for to vse them: for Physicions hold, that egges of Turkies engender grauell, and minister cause to breed the Leprosie.

Chap.

Chap. XXI.

Of Turtle doues, Partridges, Quailes, Stock-doues, and Thrushes.

THe place to put these kindes of Birds in (seruing rather for food and pleasure than for breeding) shall be ordered after the manner of the Feasant-house, that is, after the manner of a great Cowpe, so leaning against the wall of the back-yard, and open toward the light, wouen and wrought with the strings of a small Bow, put through wood, after the manner of Bird-cages, with a dore of the same: And within, especially toward the corners, there shall be great store of Perches, and branches of boughes of Iuniper, Bayes, and other trees, within which there shall be tyed against the said wall small baskets to allure them to lay and sit in, if so be they haue any inclination thereunto. It shall be of the height of a man: and ouerthwart, and euerie way, you shall hang Perches, stayed 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 boords of a good length, and a third vnderneath them, and there shall you make places for them to eat their meat, and to set their water-pots for them to drinke, which you shall refresh and make cleane verie often. These birds are all of them such as vse to goe together in flockes, and delight in hot ayre, and in cold weather flye ouer the Sea out of one Countrey into another. And therefore to tame them in such manner, as to make them like our house-birds, would be a verie hard and difficult thing: And againe, wee make no further account of them than for their daintinesse and delicatenesse; which is the cause why they are of such request in Feasts and Banquets.

Turtle doues. Of all these fore-named kinds of Birds, there is none more apt to tame than 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 means of it they doe quickly fall to forget their libertie and freedome; for this bird is of a great stomacke, and beareth it therefore verie mournefully, when shee perceiueth her selfe taken: for which cause also they almost neuer lay when they be restrained and kept in, neither yet feed fat in Winter; quite contrarie to Thrushes: They feed vpon Barly, Fetches, and almost all other kind of graine: they desire faire and cleare water, and often renewed, and a large water-pot, that they may bath themselues therein sometime: Especially they loue Millet and Pannickle, and make no lesse account of Wheat, of which sorts of Corne a bushell will satisfie six score Birds: And you must not forget Grauell, which must be layd by their water-pots for to be their physicke, and some also in some of the corners of the house, for them to scratch in. If they hang the wings, and stirre not out of their Basket, you must take them and looke to their billes, whether they haue the Pip, or no; and, if need be, to take it from them: and to their feet, 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 Hennes. The bloud of the right wing of a Turtle dropt into the eye, is excellent good against the stripes and vlcers of the eye: And their dung is good against spots in the eyes.

What meat Turtles feed vpon.

The diseases of Turtle doues.

Stock-doues. Stock-doues may be fatted and fed after the verie same manner, but they are greater eaters, and more hard to tame: in Winter they loue a sup of wine, and doe grow verie fat, so also doe 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 than the spotted, or any other sort; likewise they haue not so delicate and fine a flesh: being notwithstanding well fed, they are little inferior vnto Feasants: and you must handle them after the same manner, and giue them all one meat, but that Partridges loue

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now and then to eat Corne, and feed vpon greene Grasse. The male Partridges are verie hot, and the Henne doth lay a great sort of egges: The Cocks also doe beat one another for the Hennes, vntill the one hath ouercome the other; and he that ouercommeth, ouer-croweth the other which is ouercome, and maketh him follow and come behind him, after the manner of the Hennes.

The Henne Partridge is so fruitfull, that she conceiueth at the onely voice or flight, or breathing of the Cocke. The meat that they most delight in, is Millet and Pannicke.

The egges of Partridges often eaten doe bring fruitfulnesse vnto barren women, and great store of milke vnto Nurses. The gall of a Partridge doth cleare the sight, and mixt in equall quantitie with honey, doth heale the bruises of the eyes: the bloud of Partridges hath the like vertue. *The egges of Partridges. The gall of a Partridge.*

Quailes (being birds liuing altogether vpon the earth rather than in the aire) doe not make or build themselues anie Neasts, anie more than all other birds which are heauie, and cannot so well flie: They be verie fierce, and in that respect they are not accustomed to haue either so much scope or light as other birds. Likewise wee see that they are wont to haue their Coupe couered with nets or skins, least in flying vp on high, and rising with some boisterousnesse, they should beat themselues to death. Some prouide them Meat-pots and Water-pots apart, that is, to euerie bird his owne prouision and diet: They loue greene Corne and Wheat, and Mustard seed is their chiefe and principall feeding. They eat in those Countries whereinto they go (being elsewhere than in this our Countrey) great quantitie of Hellebore. And this is the cause why *Didimus* saith, that their flesh is laxatiue, and that it doth procure the turning sicknesse and headach, that it causeth the falling sicknesse, conuulsion, and distension of the Muscles, and for that cause that they ought to be stuffed with Millet, or boyled therein: or else if anie should find 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 eat. The Cockes are nothing lesse hot than the Partridge: The Henne so soone as she hath layd her egges, sitteth them, and by and by after she hath hatched her young ones, she draweth them into some other place, to the end that such as goe about to take them, may not find 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 Countrey, as being an excessiue cold place: and hardly at anie time doe they endure this aire, and therefore it were but foolishnesse to goe about to fat them here. This bird is addicted to hot Countries, as also to such places as where there are great store of Oliue trees: for they doe greatly delight in Oliues, and grow fat at such season as they grow ripe. It is a bird also giuen to make great hauocke and spoyle: for the Thrushes doe poure downe 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 hillie Countries; but it is in Winter time: for they gather fat, and fill themselues in cold weather, if it be anie whit moderate. The men of old and ancient time did much esteeme them, and sold them in the time of the Romanes for tenne Sous a peece. Thus also to this day doe the Italians and Spaniards; and in this our owne Countrey, those of Lyons, Prouence, and Auuergnac: but they are not so great on this side the mountaines, as they are beyond. This bird is more sullen than anie of the afore named, and dieth shortly after she is taken, if she be carried out of her ordinarie ayre, or if she be not put presently amongst other old tame ones: They must haue their meat cast them vpon a verie cleane floore, and farre from their Perches: and some cast them dried figges stamped with the flower of meale, and that so much, as that there may something remaine more than they can eat: And sometimes, for change of diet, they may haue cast them the fruit of Masticke or Mulberrie tree, or the berries of Iuie and wild Oliue trees: and yet *Thrushes. Sous. The value of this bird in times past, and yet also. The ordinarie meat for Thrushes.*

notwithstanding their meat-pots must alwaies be full of Millet, for this is their chiefe meat. Againe, you must see them prouided of cleare water as well as other birds afore named.

Chap. XXII.

Of the Doue-house.

The profit of a Doue-house.

THe profit that commeth of the keeping of a Doue-house, is nothing lesse than that of the keeping of a Hen-house; especially in respect of the selling of young ones, and others, which euerie yeare increase innumerably: for there are some Farmers which sell, at euerie flight, two hundred and three hundred paire vnto the Victuallers. The care to be had about them is not so great as that about other birds, neither the cost so great, in as much as they get their owne liuings the most part of the yeare, and in that they lay sixe or seuen times a yeare two egges a peece: yea, and oftener and greater, if you change the young House-doues Pigeons with those of the Cote, after that they be once eight daies old, to the end they may accompanie the Cocke Pigeons which goe by themselues without anie Matches: but this must be done so cunningly, as that the dams doe not perceiue it. It is true, that 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 verie oft anie Doue-houses in vpper roomes, except it be to such as haue a competent quantitie of arable 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 Countrey house, before in this Booke appointed, and that after the fashion of a stone Tower made for a Wind-mill, or somewhat neerely resembling it: but let it be distant a flight or two from anie water, to the end that the old Pigeon may warme that which shee bringeth for to giue to her young ones: For it is certaine, that as the Pies and Sparrowes, the male and the female, 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 safetie of their young ones, vntill such time as they be 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 Countrey, but that it take part also of the South, because this bird 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 anie window be made vpon the North side: or if there be anie, for to let in the coole aire in Summer, yet it must be verie close stopt vp while the cold endureth. Let the South window be turned toward the Barne dore: and by the side of the said dore 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 manner of a basen, diuided into manie partitions to drinke at, to the end, that when the Pigeons haue pickt vp the Corne scattered from the Fanne, or striked abroad by the Flaile, they may haue their water neere and easie for manie to come by together, either to drinke or bathe themselues in. And you must procure and see that this Doue-house be built and layd with a good and broad foundation, well couered, and the floore close beaten and loamed ouer, to preuent the danger of the dung, which doth vndermine and corrupt the foundation. It must also be well and close layd and drawne ouer with Mortar within,

Pies and Sparrowes, male and female, do sit.

A dore window.

within, and the chinkers or clefts which may grow must oftentimes be searched out and stopt, for feare of Rats or Mice, which is a mischiefe often happening where there is not anie plaister to come by: and it must also be drawne ouer in like manner on the outside, for the crackes that happen in Lime and Sand are in stead of ladders for Fulmers, Weasels, Cats, and other beasts to climbe vp by. And for the verie same cause you shall make round about the Doue-house, on the outside, two out-casts of hewed stone, or round rings of plaister, as broad as three or foure chesse of stones: the one of these rings or out-laies shall be about the middest of the Doue-house; and the other close vnder the window, at which the Pigeons vse to goe in, & vpon which the Pigeon also may sport and turne her selfe round. As concerning the falling window and chiefe entrance into it, it must be made higher than the dor-window, and larger also: And yet I meane, that this window without be round compassed with white plates well nailed to the walls, and that is shut with a falling lattice thicke 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 kind for the Pigeon than those of Boord, or square Tyles, or of Plaister, howsoeuer they be subiect to grow full of chinkers and vermine, which infeeble the Pigeons when at anie time they seize 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 her selfe 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 back. If either of these two points be missing, then she leaueth her hole desolate and forsaken, and oftentimes the house to.

Beasts to be kept out of Doue-houses.

A draw lattice window.

It will be good also, in respect of some beasts which are enemies vnto Pigeons, to hang in the Doue-house the head of a Wolfe, 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 dores 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 Pots on, and others to rest the Sparrowes vpon: and withall, beware that this mournefull birds doe not take vp his habitation in your Doue-house, for hee would make wild and estrange your young Pigeons.

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 ynough for three hundred holes: Likewise if the Doue-house be of a thousand holes, or moe, then so small a companie would not be ynough; neither indeed would they loue it, they being of so small a number, but would goe away or die in the end.

To store a Doue-house.

The Pigeons wherewith you mind to store your Doue-house must be young ones, taken when they are halfe downe and halfe feathered, together with the old ones their dams, and so put at libertie in your Doue-house, or rather in great Cowpes, and cause them to be fed with Fetches and water with some skilfull handler of Pigeons twice a day, so long as till they become to eat 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 find out the way to take their flight directly to their former and first home, so soone as you had made them way to get forth, how farre soeuer they had beene brought. The Pigeons good to encrease store, are the ash, browne, and blacke coloured; the rough-footed or coppild ones are too mournefull, and keeping too much at home: so in like manner 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 eyes 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 birds, because they are verie easily perceiued as they flye by a farre off. You must make your choice of the May slight, 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 meat. Aboue all things, let them not be pinched of their meat in the moneths of Aprill and May, because the old are verie manie of them sitting, or else haue alreadie hatched.

To tame Pigeons.

For to make them familiar and tame, giue them some Honey, or some little pieces of Bread, afterward some Fetches, then Cummin (for these seedes allure them verie much) and sometimes Wheat among the ridled scraps, and let them not goe out till after fifteene daies of your putting of them in, during which time you shall cut their wings: you shall keepe a net spread ouer the windowes, to the end that they may haue the light of the day, and yet not be able to get forth: About the end of fifteene daies you shall 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 farre 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 receit, and not forsake or leaue the same, hauing neuer had the tast of anie former choice in anie farre remoued place, to returne thither againe. Further, if you lay vpon the window, made for them to light vpon at the comming to the Cote, a loafe made of red earth, Cummin seed well bruised, Honey, and Brine, all being well boyled together, and dried in the Ouen; for hauing picked vpon this lumpe, they will neuer fayle to returne thither againe, they are so much giuen to the pleasing of their taste: And further, by the verie sent and smell of this remayning about their billes, they will bee the meanes to allure others along with them euen to their Cote, 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 boyled in some cuted wine: or else drie Figges, mixed with the meale of Malt and Honey. Some say also, that Pigeons will neuer goe away, if there be set vpon the Turret of the Doue-house the head of a Bat, or the branch of a wild Vine: or if the dores and windowes of the Cote be rubbed or annoynted with the oyle of Balme: as also that Pigeons when they flye into the fields will bring home others with them, if you rub their wings with the said oyle of Balme: or if you giue them, before their going thither, Fetches, besprinkled with wine: or shall haue steept in such liquor for them the seed of Agnus castus; for other Pigeons, after they haue smelt the sauour of your Pigeons mouthes, will not fayle to come with them to their Pigeon-house. Perfume oftentimes your Doue-house 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 than anie 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 farre from the dung, and in causing the Water-pot, wherein they bath and refresh themselues, to be oftentimes made cleane, that they will draw diuers others from other places, insomuch, as that your twentie paire in fortie dayes will haue stored your house with twice, yea thrice so manie; for they bring forth young thrice, and those which are good, foure times a yeare: and you shall not need to care for anie thing, but to keepe the Doue-house cleane. And for this cause it behooueth him that hath the charge of the Doue-house to goe into it once a weeke at the least, and that in the morning, or at the times of reliefe, when as the Pigeons are in seeking their meat, and abroad in the Countrey thereabout: for seeing that they doe ordinarily keepe their noonetide in the Doue-house, if he should enter in at that houre, he should make wild and estrange the young ones, yea the old ones themselues. In going in, he shall whistle them,

Perfumes for the Doue-house.

To draw Pigeons to a place.

them, and caſt them ſomething to eat, to the end they may be accuſtomed with him, and acknowledge him: Hee ſhall emptie and fill vp againe their Water-pot with cleare water, he ſhall pare the floore, he ſhall caſt out ſuch as he ſhall find dead: he ſhall make cleane the holes, to the end that they may not gather anie Fleas, Lice, Punies, or Mothes: eſpecially in Summer he ſhall not put vp againe into their holes ſuch as may be fallen out: he ſhall cull out the barren, that he may put them in ſome place by themſelues, that ſo he may fat them, and afterward either eat or ſell them: And if he perceiue the traine of anie Snake or Adder, he ſhall ſet a long earthen pot vpon the tayle 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 kind of little foot-pace, or ſuch other thing, whereby ſhee may creepe vp vnto the top of the pot, and caſt her ſelfe in afterward; for the Adder cannot come forth againe: and ſo you ſhall cleanſe and rid the Doue-houſe. 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 anie thing in the field: but this paine is not paſſing two moneths continuance, or thereabout, that you need to feed them with Corne, with the droſſe of the Wine-preſſe, or the ſtones of Grapes; of which things there may be ſtore and prouiſion ynough 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 yeare.

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 verie hot, and ſerueth to fat and amend the fennie and wet places of your part of Corne ground, or of your Medowes, or the young Plants and tender Hearbes, and to refreſh and relieue all Trees ſubiect to coldneſſe and moiſture. You may alſo make your vſe thereof for the Sciatica, in making a Cataplaſme thereof with the ſeed of Creſſes and Muſtard, and putting thereto a little of the Philoſophers oyle: as alſo againſt Head-ach, if wrought in a Mortar with the oyle of the kernels of Peachſtones, you apply it to the place that paineth you. *Pigeons dung.*

Chap. XXIII.

Of the Neat-heard.

NOtwithſtanding that wee 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 manner: 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 meat, neither yet of her handling and managing, neither yet in furniture: but the force and ſtrength whereby the Oxe doth cleaue the ground, and draw the Cart, requireth one that ſhould doe nothing but attend them: notwithſtanding that, he muſt feed two for one; and that three of the beſt Oxen in Bourbon, or in the Foreſt, do 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 Heards of Horſe, or where Horſe is not to be come by, but out of ſome farre Countrey. 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 doe like better thereof than of the Oxe: Euen as in Prouence, Languedoc, and Auuergnac, men doe vſe the labour of their Mules and their young Colts

rather than 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 marueilous good, auaileable, and profitable in ſtrong grounds; for they draw 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 breaſted, in Gaſcoigne, Bourbon, Poitou, Aniou, and Mayne. 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 feed vpon paſture, without anie other food or prouender, beſides the great profit and good prouiſion comming of them: for being either ſhoulder-ſhot or bruiſed in anie 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 kind 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 moiſture may not ſtand. It muſt alſo ſtand vpon the South, that ſo it may be the more drie, and leſſe ſubiect vnto cold and froſtie winds: it ſhall be nine foot wide, and onely of ſuch height, as that the Oxe may ſtand vpright, and the Oxe-keeper may haue ſpace ynough to goe round about them, to ſee and ſerue them with fodder: as alſo to the end 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 keepe the Oxen, is to be gentle and 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 lye downe, and in the morning to currie them and wipe them cleane gently, waſhing their tayles oft with warme water: To keepe their houſe cleane, and not to let Hennes or Swine come therein; for feathers will kill Oxen, and the dung of a diſeaſed Swine engendreth the Murraine or Plague: To giue freſh ſtraw vnto theſe Cattell, and to caſt to them in Summer the greene ſprouts and tender ſhoots of the arbors of Vines, or others; and in Winter, of Beane ſtalkes and graſſe euening and morning. Let him be skilfull to diſcerne when Plough Oxen haue labored 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, hee ſhall caſt a little wine into their throats, and ſhall not tie them to their Manger, vntill ſuch time as their wearineſſe be ouerpaſt. When there commeth together anie companie of Feſtiuall dáies and reſt, he ſhall greaſe their hornes, and vnder the paſterne, together with the hoofe: or elſe he ſhall put vnder an Onion, roſted verie ſoft betwixt two coales, tying it thereto with a cloth. Let him oftentimes make cleane and refreſh their paſternes, and not ſuffer them to cleaue or rend: and to that end let him euerie yeare cauſe to be repaired the pauement of his Oxe-houſe, which will ſerue alſo to keepe away beaſts and vermine which are wont to annoy Oxen. Let him remoue them one farre ynough from another, leaſt they ſhould ſtrike one another. When they labour not, let him water them twice a day in Summer, and once in Winter, and that in cleare, cleane, and coole water: For as hath beene ſaid heretofore, the Oxe ſeeketh after the water that is cleare and moſt bright, as the Horſe after that which is troubled. Let him carefully looke vpon their comming from field, whether anie of them haue got anie thorne in his foot, if they be ſweatie, if the Collar or the Yoke haue cauſed them anie hurt about their head, or if they be chafed about the neck, if they haue beene much prickt with the Goad, or with the Gadflie, or Hornet, and let him accordingly apply ſomething for the healing of them.

The gelded Oxe more profitable for worke than the Bull. The gelded Oxe is better meat, better marchandiſe, and better for labour than 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

keepe aboue two to bull the Kine; the reſt he ſhall geld, all of them about when they are two yeares old, for after this time he cannot doe it commodiouſly. It would be done in Autumne, and in the later end of the Moone; and the aſhes of Vine branches mixt with Lytharge muſt be applied to the wound, and three daies after pitch melted and mixt with the ſaid aſhes: you muſt not let him drinke the day wherein he is gelded, and he muſt for the ſame day alſo eat but a little meat. The manner to geld him is to take with two ſtreight 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 meanes the calfe is not ſo much ſubject to effuſion of bloud, neither yet will it be altogether ſpoyled of courage, not hauing all his pride taken away, but 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 robbing 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 tied, and he cloſe made faſt to the cratch. Couple him with another of the ſame greatneſſe, groſeneſſe, age, and ſtrength, tie them the one by the other, lead them into the fields tied 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 wildneſſe, lead them to heare the noiſe of mills, 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 yeares and a halfe to three, giue them the yoke and beele fit for beaſts of their age, and ſixtie daies after you ſhall faſten them to the waine with the teame, to draw it through the fields, or foure daies after you ſhall faſten vnto the teame a piece of wood or other load. In the end, accuſtome them to be put to draw before Oxen, which are in the plough incouraging and cheriſhing them and that without any ſtroakes, vntill ſuch time as they bee made cunning: trouble and weatie them not too much with labour the firſt yeare.

The time to geld Oxen.

The manner of gelding the Oxe

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 ayre, 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 vvith euerie place, whether the ayre be hot or tender, or ſubtile and thin. Furthermore, it remaineth that you chuſe them of three yeares old or thereabout, for ſooner you cannot traine them to labour, though you haue bought them: doe not labour them much for the firſt yeare, and eſpecially in the time of great heat, feeding them rather with good hay than with graſſe; ſo they will grow able by little and little to endure all paine, and will feare the heat the leſſe, and will continue ſound and cherefull 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 meadowes, and better then and if your beaſts had brouſed the graſſe, being but young and peeping out of the ground. You ſhall know how old they are by looking in their mouthes, for within ten moneths of the firſt yeare they change their fore-teeth: and ſixe moneths after the next, and at the end of three yeares they change them all, and when they be in their middle and beſt age their teeth are white, long, and euen: but when they grow old, they become ſhort, vneuen and blacke.

To buy Oxen.

To know the age of an Oxe.

Labouring Oxen muſt not be too fat nor too leane, and thoſe which eat 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, readie, and quicke when he is ſpoken to, not crauing 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 bodie, ſtout & ſtiffe, hauing a round muzzle, great eares very hairy and

Labouring Oxen.

The deſcription of an Oxe.

and matches, a wide and curled brow, a great and blacke eye, haire curled, and as it were waued, hornes ſtrong, quicke, of a reaſonable greatneſſe, 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 worſt of all: The gray and yellowiſh are indifferent, his hide and skin thicke and well fed, betwixt foure and eight yeares old; for at this age he is in his full ſtrength and luſtineſſe.

The liuing age of an Oxe.

The Oxe thus made, will ſerue you to labour and worke till he be tenne yeares old, and after that, you may fat him and ſell him, for he liueth till fourteene or ſixteene yeare old: You may alſo fit for the Geares, and vnto worke, ſuch Kine as are barren or gelded. But and if you buy Oxen alreadie 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 be at the Plough, or anie other labour, and find out his manners, and how he hath been handled, and what qualities the bringer of them vp hath vſed and accuſtomed them vnto, to the end 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 heard vnto labour, your Oxe-keeper muſt take the paines, and muſt, for the more his and their eaſe, know their nature, and (if I durſt ſo ſay) the complexion of ſuch as he would handle and breake: if he be a ſlow and ſluggiſh beaſt, if he lye downe often, if he be quicke, furious, and headie, ſwift to lift and lay about his heeles, or to vſe his hornes: if he be dull of the pricke, trembling, going backward rather than forward, feareſull to goe into the water: then you muſt firſt beat him from theſe faults, before you goe about to head-ſtall him, if ſo there be not anie other thing that might rather hinder and forbid him. And know, that for to doe theſe things is ſomewhat too ſoone before he be three yeares old, and ſomewhat too late when he is paſt fiue. Meat and faire words doe accuſtome an Oxe to the yoke ſooner than feare. And there is no courſe more expedient, than that which huntſmen doe vſe about a young dogge not yet made readie to range, coupling him with another dogge, which is alreadie fitted, old, and ſtayed: for if your Oxe-keeper do couple a young oxe as yet a nouice, with a well experimented and ſure old one, and yet ſo as that they be of one pitch & ſtrength: (for this is a principall thing to match them in greatneſſe, ſtrength, and nature) then he which hath beene alreadie 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 judgement fit for the draught, then put him in a great yoake, betwixt other two of his owne ſtature, which are gentle and wel reclaimed to their worke, and in three daies you ſhall ſee him to buckle himſelfe handſomely vnto it alſo.

To know the complexion of an Oxe.

To take away faults in a yong Oxe.

To match Oxen.

To tame Oxen.

Faſting for Oxen.

A Briſe is a kind of ground that hath lyen long vntilled.

And if you will only 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 tye him faſt to a ſtake, and there let him ſtand faſting ſome certaine time: if he be ſtomackfull, when his heat is ſomewhat ouerpaſſed, cauſe him to ſmell your hand oftentimes, that ſo he may be acquainted with you, and claw him betwixt the legges, and euerie 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 emptie tumbrell, and cauſe him to draw a little prettie way, after put into the tumbrell ſome load, to trie his ſtrength, and in like ſort acquaint him with your cryes, words, and goads.

The way to correct Oxen.

If you haue bought an Oxe readie vſed and accuſtomed to draw, and that you doe not know his complexion, you muſt trie and find it out when he is yoaked, as if he be reſtie, trembling, furious, or if he will lay himſelfe downe in the heat of the day, and not to correct him for his faults, neither with whip, neither with blowes

with

with the Goad; for the one maketh him furious and raging, and the other hardeneth him: but rather to bind his legges, and so let him stand and fast a certaine time; for this fault commeth seldome to anie 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 safetie 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 outragiously heated by too much labour, is in manifest danger of death, by reason of the moulting and running of his grease throughout his bodie: and though he escape and die not, yet will he neuer doe anie good.

Ordinarie meat for to giue Oxen.

Oxen are not to be fed so frankly and full in Winter, when they labour not: They loue the straw of Pulse, as of Fetches, Pease, and Beanes: they are fatned with Barly boyled, 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 onely meat when hee laboureth. In the Countrey 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 young sprouts and buds of Vines doe refresh them in Summer: and some do willingly giue them faggots to browse vpon at night. They loue aboue all other things the young buds of the Vine, and of the Elme-tree: and such like account they make of the drosse of the Wine-presse. The sheaues of Wheat and Rie are good for them: and sometimes Branne mixed with siftings; both these puffe them vp, and make them nothing strong. The Acornes doe make them scabbed, if they doe not loath them, and if they eat not all their fodder. Coleworts boyled with Branne make them to haue a good bellie, and doe nourish somewhat: so likewise doth Barly straw mixed with Branne. There may be mingled amongst their prouender the drosse of the vvine made for the seruants, but not before it be vvashed and dried: but without doubt it is better to giue them such drosse before it be vvashed, euen such as it is, and so it vvill serue them for their vvine and meat, and vvill make them faire, deliberate, and powerfull. Nothing is better to fat them, than to feed them with the grasse which groweth in the meadows in Autumne after that they haue beene cut.

The Englishmanner of feeding cattell.

But though this for necessitie sake be the manner of feeding of Oxen in France, yet to feed them after the English manner is the soundest and best way, and maketh them euer more readie either for labour or the market; which is to say, if you keepe your Oxe for labour onely, then in the time of rest to giue him either Pease straw, Barley straw, or Oat straw, is a food that will hold well ynough, if the beast be lustie and in strength, but if he be poore and weake, then to take two parts straw, and one part hay, and mix it together, which is called blend fodder, is meat that will encrease strength; and when you worke him sore then to giue him cleane hay, or ful bit of grasse, is all that he naturally desireth.

To keepe Oxen from diseases.

The Oxe is subject to fewer diseases than the horse. And for to keepe him from the most ordinarie, old and auncient men did purge them in the end of euerie one of the foure quarters of the yeare, and three dayes following. Some with Lupines and Cypres-berries brayed together, as much of the one as of the other, and set forth to infuse in the open ayre one night, in a pint or three halfe pints of common water: others with other simples, according to the custome and diuersity of the place and countrie. He is knowne to be sicke and sickly if he eat not when he hath good store of fodder or prouender before him.

The sicklie Oxe.

To get an Oxe a stomach.

To helpe the Oxe to a stomach, when he hath no tast in his meat, by reason of being ouer-wearied, or ouer-heated: it is vsed to rub his tongue and roofe of his mouth with salt and vinegar.

For faintnesse and disabilitie to doe anie thing.

If he become faint and vnable to doe any thing, there must be giuen to him euerie Moneth beaten Fetches, steeped in the water which is to be giuen him for his drinke.

Wearisomnesse.

To keepe him from tyring and wearinesse, rubbe his hornes with turpentine made thin

thin and liquid with Oyle: but beware and take good heed that you doe not touch his muzzle or nosthrils therewith, for Oyle causeth them to loose their sight.

The rising of the heart. Colicke.

Against the rising of the heart, or desire to vomite, his muzzle must be rubbed with Garlicke or Leekes bruised, 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 the bellie: the collicke 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 vvater. Some add thereto the Oyle of Nuts, and others giue him boyled Onions in red Wine, and others, Myrtles, with Bay-berries steepe in Wine, and they also cause his flesh to be prickt aboue his hooues, or his taile vntill it bleed. The collicke commeth to him of vvearinesse, and more in the Spring than at any other time, because as then he aboundeth most vvith bloud. In this disease he must be vvalked, and couered vvith a couering of Wooll.

Swelling.

Oxen become swolne and blowne vp by hauing eaten ouer ranke grasse, especially if therewithall it vvere ouerladen vvith dew: you must take a horn bored through at both ends, annoint it with common Oyle, and put the fore part of it three or foure fingers into the fundament, and to vvalke and course them thereupon vntill they breake vvind, and letting still the horne alone in such maner as is aboue said, you shal rubbe their bellies vvith a barre.

The Stithie, Mailet, or Hammer.

The Stithie happening to the Oxe, being otherwise called a Mallet or Hammer, is knowne vvhen the beast hath his haire standing vpright all ouer his bodie, not being so light and liuely as he vvas vvont, hauing his eyes dead and dull, his neck hanging downe, his mouth driueling, his pace slow, his ridge bone and all along his backe stiffe, vvithout all desire of meat, and scarce any thing chewing the cud. This disease may be cured at the beginning, but hauing once taken deepe root, refuseth all maner of cure. Whereunto take of Squilla or Sea-Onion, small shred, three ounces, the roots of Melons beaten as much, mixe all together with three handfull of grosse Salt, and steepe them all in a pint and a halfe of strong vvine, and euerie day you shall giue of this vnto the beast the quantitie of a quarter of a pint.

The flux of the bellie.

Vnto the flux of the bellie, vvhich sometimes continueth till bloud come, and vveakeneth the beast much, there must be giuen to drinke in red Wine the stones of Raisons, or Galles and Myrtle-berries vvith old Cheese delaied vvith grosse and thicke Wine, or the leaues of the vvild Oliue-tree, or of the vvild Rose-tree; keeping the beast therewithall from eating or drinking any thing for the space of foure or fiue daies. And for the last refuge or extreamest remedie, it is vsed to burne him in the forehead with a hot burning yron.

To loosen an Oxes bellie.

For to loosen the bellie of an Oxe, you must cause him to drinke in vvarme vvater two ounces of Oliues made into poulder.

To keepe him sound. The Oxe his vheume.

Admit that you would feed and fat him for labour, then you must vvash his mouth euerie eighth day vvith his owne vrine, and thus you shall draw from him much flegme, vvhich taketh from him his appetite, and doth injurie him in his meat. And if this flegme haue caused him to haue the rheume (vvhich you shall know, vvhen you see him to haue a vveeping eye, and therewithall also vvithout any appetite, and hanging downe of his eare) then vvash his mouth vvith Thyme stamped in vvhite Wine, or else rubbe it vvith Garleeke and small Salt, and after vvash it vvith Wine. Some cleanse away this flegme vvith Bay-leaues stamped vvith the rindes of Pomegranets: others inject into his nosthrils Wine and Myrtle-berries.

Pissing of bloud

The Oxe pisseth bloud either by being ouer-heated, or too much cooled, by hauing eaten euill hearbes in the Summer time, and especially at such time as the dew lieth vpon the grasse: the remedie is, not to suffer him to drinke any vvater or other thing: to cause him to take downe a drinke made of three ounces of Mustard-seed, three ounces of Sea-millet, both stamped together, an ounce of treacle, all boyled, in two pints of white Wine, afterward dissolue therin two ounces of Saffron, and make the beast to drinke it.

Against

Against the rheume and eyes that are swolne and puffed vp, it is vsuall to let the beast bloud vnder the tongue: or to make him take the juice of Leekes, 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 annoint the eye all round about vvith pitch well tempered vvith Oyle, because there is danger in the Honie, as which might draw Bees and Wasps about the beasts 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 rubbed 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 Barbes.*

To cleanse the inward parts of the sicke beast thoroughly, there is nothing more soueraigne than to take the drosse of Oliues after the Oyle is pressed out, and to vse it oft about the beast. *To pourge Oxen.*

Vnto an ague which may befall him by ouer-great trauell in hot vveather, with heauinesse in the head, swolne eyes and extraordinarie heat, which is felt by touching the skin: the remedie vsed is to let him bloud vpon the veine of the forehead, or of the eare veine, giuing him therewithall cooling meat, as Lettuces and others, and vvashing his bodie vvith vvhite Wine, and then giuing him cold vvater to drinke. *A Feuer.*

If the pallate of the beasts mouth beeing heaued and swolne, doe cause him to forsake his meat, and often times to grone: it vvill be good to let him bloud vpon the veine of the sayd his pallate: and then after his bleeding, you shall giue him nothing to eat but Garleeke vvell soked, bruised, and husked, with the leaues of the same or other greene thing, or verie soft Hay, vntill such time as he find himselfe well. *The pallat of the mouth swollen.*

The disease of the Lungs is so desperate and vnrecouerable both in Oxen and Kine, as that there is no other remedie, but to vvash the stall wherein they haue stood vvith vvarme vvater and sweet smelling Hearbes, 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 euill hearbes, or naughtie Hay which they eat, or of the ouer-great aboundance of bloud, but most of all through horse pisse, and yet more especially by keeping the beasts houses too close and ouer much shut. And this is the cause why Mares nor Horses (yet verie vvell Asses) can or ought to be left in Oxe-houses, because that the breath of Asses doth preserue cattell from this disease. *The disease of the Lungs.*

For the Cough there is ordinarily giuen to drinke the decoction of Hyssope, and to eat the roots of Leekes, stamped with pure Wheat: others giue to be drunken seuen daies together the decoction of Mugwort. *The Cough.*

If in drinking he swallow a Horse-leach, and that the same doe fasten her selfe by the vvay in his throat, then he must be cast downe vpon his backe, and warme Oyle poured into his mouth; but and if she be got into his stomach, there must Vinegar be poured in. *Bloud suckers swallowed by Oxen.*

If he happen to to haue his horne broken or shiuered, take sixe ounces of Turpentine, and one of Gum Arabecke, boyle it all together, and with that oyntment rubbe the horne all about euerie day, for the space of ten or twelue daies: which being expired, beat Bole-armoniacke with eight whites of Egges, spread this composition vpon plegets, which you shal lay vpon the horne, leauing them there three whole daies: afterward when these plegets shall begin to be drie, take them away, and in place thereof spread round about the sayd horne, Sage made into poulder; the horne will heale. *His horne broken and shiuered.*

To fasten a horne which is verie loose and readie to fall off: first you shall set close and fast the horne in his place, afterward you shall annoint all the vppermost part of the head, for the space of fiue or six daies with an oyntment prepared of bruised Cummin-seed, Turpentine, Honie, and Bole-armoniacke, all of it being boyled and *A loose horne.*

and incorporated together, afterward you ſhall foment the horne vvith a decoction of Wine, vvherein haue beene boyled the leaues of Sage and Lauander in ſufficient quantitie.

The necke ſwoln If the necke be ſwolne that it cauſeth ſome ſuſpition of an Abſceſſe or Apoſtume: then you muſt open the Apoſtume with a hot yron, and put in the hole where it was opened, the root of Sow-bread, 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 manner to let him bloud.

The necke ſtead or chafed. If the neck 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-goat, and Swines-greaſe, all being mixt in like quantitie, and molten altogether.

The chine pild and bald. If the hinder part of the necke be pilled and growne bald and bare without haire, annoint the place with a liniment prepared of ſixe ounces of Honie, and foure ounces of Maſticke, all boyled together.

The chine growne brawny and hard. For the hardneſſe of the hinder parts of the necke, let him take his reſt certayne daies, during the which time rubbe the place with Butter, Honie, Larde of Porke, and new Wax in equall quantitie. all being molten and mixt together.

The chine ſwolne or puffed vp. For the ſwolne Chine, make an oyntment of the root of Elecampane well boyled, and ſtampt with Hogs-greaſe, the fat of a Weather or Male-goat, raw Honie, Frankincenſe, and new Wax; with which you ſhall rubbe the ſaid Chine or hinder part of the necke thrice a day, Euening, Morning, and at Noone tide.

Hide-bound. If he be ſo leane as that his skinne ſeeme to cleaue to his ribbes, foment his skinne againſt the haire with Wine and Honie, being in ſome warme place, or in the Sun: after annoint him with the Lees of Wine and Hogs-greaſe, all mixt together, and made in forme of a liniment.

Paine in the bellie. For the paine of the bellie, giue him to drinke Treacle, or Mithridate mixt with Wine, afterward let him bloud the next Morning vnder the tongue, and in the noſthrils, or elſe cauſe him to drinke the decoction of Rue and Cammomile finely powdred, and let him reſt at the leaſt ſeuen or eight daies, giuing him but ſmall to eat, and keeping him well couered in a warme houſe; foure 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.

For the falling out of the draught-gut. For the falling out of the Draught-gut, take three ounces of Turpentine, cauſe it to be put vp into the draught by ſome little boy which hath a long arme and leane withall, to annoint it diligently, and this to be continued for the ſpace of foure or fiue daies: in ſtead of the Turpentine, the greaſe of a Hogge will ſerue for an oyntment.

Looſeneſſe of the bellie. For the looſeneſſe of the bellie, which commeth of hauing eaten Hearbes, or ſuch other like things of hard digeſtion: firſt keepe him from eating of any Graſſe or Hearbes for the ſpace of two or three dayes, in the which time you ſhall giue vnto him the leaues of the vvild Oliue-tree, Plantaine, Horſe-taile, and ſometimes of Nightſhade-berries; and againe, during this ſaid time, you ſhall giue him but little to drinke, this is to ſay, juſt nothing for the moſt part. Otherwiſe, ſee that he eat no other things for certaine daies, than the Leaues of Organe, and garden Southernvvod, and euerie day you muſt allow him onely the quantitie of two eawers of water to drinke.

The bellie bound. To looſen his bellie, take two ounces of Hiera, one ounce of Aloes Hepatica, mixe them both vvell in vvarme vvater, and cauſe him to drinke them in the Morning.

A broken legge If he haue a broken Legge, for to ſet it, draw it your ſelfe, or cauſe your ſeruants cunningly to ſtretch the Legge with a rope, right ought, not more to the one ſide than to the other, that ſo the broken bones may be joyned and placed againe in euen ſort: Afterward, let looſe the two parts, that ſo they may joyne cloſe together; apply aboue the place pleagers dipt in a compoſition made of the whites of egs, bole-armenack, and dragons bloud; then tie vp the member ſo ſtrong and ſtreight, as that the

the two ends of the bones broken may joyne and grow together againe: aboue these bands applie yet other moe pleagets vvet in Wine, for the comforting of the sinews. And to the end that the vpper and lower broken bone may not grow hard or gee any other ill disposition or qualitie eyther by reason of the binding, or else by reason of the fracture it selfe, you shall rubbe both the one and the other part, vvith a liniment made of an ounce of Turpentine, with as much Butter, and the like quantitie of Oyle.

For a legge out of joynt.

For a Legge that is out of joynt, or by some meanes displaced, restore againe the bone into his former place, and bind it vp after that you haue annointed it vvith Hogs-grease.

A swell Foot.

For a swell Foot, make an emplaster of the leaues of Elder-tree and Hogs-grease vvell boyled and mixt together.

For a straitned or hardened foot, founder.

For a foundred Foot, take the roots of Mallows, and Hollihocks, boyle them in a sufficient quantitie of vvater, stampe them and straine them through a strayner, to that which is strayned out put halfe a pound of Hogs-grease, three small pots of verie strong Wine, boyle them altogether, vntill the grease be melted, then put thereto of Linseed vvell bruised and beaten in a morter, and so boyle them altogether to the consumption of the Wine. Applie some part of this cataplasme vnto the foot, and let it remaine there three vvhole daies; and then taking away the same, apply the rest for other three daies.

Lameness, or Surbutting.

For Surbutting, or Lamenesse, you may boyle Honie and Hogs-grease in white Wine; applie vnto the Foot this emplaster, and there let it remayne three vvhole daies.

Pricking of the Foot.

For the Foot pricked vvith a Naile, Glasse, Thorne, or any such other thing that is sharpe, cut the horne of the hoofe as neere vnto the prickt place as possibly you can, afterward drop into the hole of Turpentine and Oyle, both hot; and lay a plaister of Honie and sweet Seame melted together all ouer the Foot.

The Claw clouen.

For the Claw that is clouen or shiuered, take Honie, new Wax, and Turpentine, of each an ounce, and make an oyntment, vvhich you shall applie round about the Claw for the space of fifteene whole daies, vvhich being past, add vnto this oyntment Aloes Heparica. Mel rosatum, and Roche-Allome, of each halfe an ounce, couer therewith the whole Foot, after you haue bathed it in warme Wine mixed vvith Honie.

The Claw hurt.

For the Claw hurt with yron or stone, digge and pare away the Claw euen to the bottome of the hurt, vvith a Smiths paring knife: drop into the sore hot oyntment made of old Swines grease, and sewet of the Male-goat melted together, and put into the sore, tents of tow dipped in the said oyntment.

The going off of the Hoofe.

When the hoofe is like to goe off, you must first salue it with the oynement spoken of before for the shiuered Foot 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, thrice euerie day the whole Foot with Wine or Vinegar, wherein haue boyled vnquencht Lime and Honie, of each seuen ounces.

Pissing of bloud.

For the pissing of bloud, cause him to drinke the juice of Plantaine, with verie good Oyle: and afterward, take the poulder of Tartar, and of vvild Gourds, mingle them vvith red Wine, and the vvhites of Egges, and make him to drinke them vvith a horne: And if this doe not stay his pissing of bloud within foure and twentie houres, 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 Honie, Oyle, and white wine all boiled together, for three Mornings one after another: afterward, let him rest for eight daies.

The stone in the yard.

If he haue a stone in his yard, first cast the Oxe downe vpon the ground; after let him take hold 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 foure 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 dram and a halfe of Pepper: poune them altogether, and make him drinke them in red Wine warme. If after you haue continued the same some certaine daies the stone come not forth, then in the end you must cut the bladder, and so draw it out.

For the hardnes of the pisse.

If his pisse be hardened, annoint it with the oyntment made of the stamped roots of Hollihocks and fresh Butter twice a day.

The shoulder out of ioynt.

For his shoulder out of joynt, you must first set it in againe, and afterward bind and roll it vp againe with splenters, verie close and fast.

Strangles.

For the strangles or glandules vvhich happen vnder the Oxe his throat, and spring from the braine ouer-cooled, plucke away their glandules, and after couer his head vvith some couering, and chase and annoint vvith Butter his throat oftentimes.

The pallat of his mouth swolne.

If his pallate be swolne, open the swelling quickly vvith an incision knife, or hot yron, that so the corrupted bloud may run forth: after giue him for his meat some Grasse or soft Hay.

The swelling vnder the toung called Ranula.

If he haue the Ranula vnder the tongue much swolne, then open it vvith a hot yron, or a verie sharpe incision knife, afterward rubbe it vvith Salt and Oyle so long as till all the corrupt matter be run out; then in the end giue him some tender hearbes or grasse to eat.

The toung clouen.

When the tongue is clouen or chopt vnder neath, annoint those clefts vvith an oyntment made of Aloes, Roche-Allome, and Honie of Roses, all being mixt together, then vvash them in Wine vvherein Sage hath boyled, or some such other drying herbe.

Losse of appetite.

If he haue lost his appetite, cause him to swallow raw Egges well beat together with Honie, and mingle Salt among his meat, or giue him in drinke some horehound finely pouldred with Wine and Oyle: or stampe the leaues of Rue, Leekes, Smallage, and Sage, and giue him them to drinke with Wine.

The troubled eye.

For the eye that is troubled and darke, blow within it of the poulder of Cuttlebone, Sugar candie, and Cinnamon verie finely pouldred.

The eye swolne or puft vp.

For the swolne Eye, applie thereto a Cataplasme made of the the flower of Wheat mixt vvith Honie or the vvater of Honie, after the manner of pappe for children.

A white growing vpon the eie.

For a vvhite vpon the eye, applie thereto a cataplasme made of Sal gemma, and Masticke finely pouldred and mixt vvith Honie, continue and vse this oftentimes.

The tumor called porrum.

For the Leeke of the Eye, or tumour called Porrum, growing vpon the Eyelid, foment the place vvith the Gall of any beast vvhatsoeuer it be: or vvhich is better, snip away the tumour with a paire of Cysers: or make it fall away with a threed tied verie strait, afterward annoint the place vvith Salt, Vinegar, and Aloes boyled together.

The Weeping eye.

For the Weeping Eye, you may blow into it Tutia and Vitrioll, made into fine poulder.

The Cataract.

For the Cataract, which is nothing else but an aboundance of vvaterishnesse, ingendred eyther by ouermuch cold, or by too long stay and respite within the Eye of the Oxe, in that place where the watrie humour is placed, vpon which the glassie humour swimmeth, as the Chrystalline againe vpon it: For the cure thereof take ground Iuie, and stampe it long in a Morter of vvood, of the juice strayned out of it make a medicine for the eye: insteed of this herbe, if you cannot recouer it, take the berries of Iuie or the leaues, and draw the juice 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 wast 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

Epiphora, a disease of the eye, 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 honey into it vntill it be perfectly cured. *Epiphora.*

For bleered eyes, which come with continuall falling downe of excrements out of the braine, take Myrrhe, fine Frankincense, & Saffron, of ech two ounces, mix them all togither, & dissolue them in cestern water, make therof a Collirie to drop into the eies. *The bleered eye.*

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 *An ague.*

towards the roots of their hornes, and in their eares; their mouth is verie hot, and ſweat aboundantly, and withall, eat almoſt nothing at all; the hanging out and 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 hee 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 daies after you ſhall feed him with the decoction of Clot-burre with honey 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 young ſprouts and buds which you ſhall thinke meet and conuenient for the beaſt: waſh his mouth thrice a day with a ſponge dipt in vineger, and after that, you ſhall make him drinke verie cold water in like manner 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 old 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 peck of Barly meale, wherein you ſhall put a whole egge, the ſhell excepted, and with a quarter of a pint 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 early in the morning. For an old Cough it is ſufficient to take two handfuls of Hyſope, old or new, and make a decoction in common water: after, when you haue ſtrained it, you ſhall mix therwith of the flower of Starch two parts, and cauſe the beaſt to take them thus. The diſtilled water of Hyſope may be put amongſt, or elſe the decoction of Mints and Hyſope together. The iuice of Leekes is good for the ſame, being preſſed out well and ſtrongly, and giuen with oyle Oliue: for there hath not beene knowne ſo old and long growne a Cough which the roots 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 drieueleth moſt at his mouth.

Paine. For all manner of pains, in what parts of the bodie ſoeuer they be, cauſing the Oxe that he can neither goe nor doe anie other thing well, make fomentations, and apply cataplaſmes, with the decoction of Camomill, Melilot, and Linſeed.

Headach. For the ach of the head, bray Garlick in wine, and make him let it downe through his noſthrils: after bath all his head with the decoction of the leaues of Sage, Marierome, 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 powned.

Vlcer. Exulcerated places, cauſed either without manifeſt occaſion, or elſe by ſome accident, are verie much holpen with the powder of Galls well brayed in a Mortar: So are they likewiſe by the iuice of Horehound, wherein hath beene ſteept the ſoot of a Smithes Forge.

The diſeaſes of the flankes. In the diſeaſes of the flanks, 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 Starch well powned together and 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 heat of the fire, and whiles it is yet good and hot, mixe therewith the flower of Barly, and make it all boyle together,

and

and so you shall applie this cataplasme verie hot vpon the flankes, and so vp to the reines.

It is to be knowne that the Oxe hath paines in his reines when he seemeth to draw his hinder parts after him, and cannot lift his legges behind for his best ease; he staggereth and soltreth behind; he breaketh 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, mooue not but constrayned, and that in mincing manner. If there be any inflammation about them, he pisseth red as bloud: If this continue, and that he cast forth much such, there is then no more remedie: but and if it be but a little coloured with bloud, there is some hope of recouerie. For this disease you shall cause him be let bloud vpon the taile veines behind, 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 juice of Leeks vvith vvarme vvater, or else his owne vrine. *The paine of the reines.*

For the inflammation of the muscles as well outward as inward of the reines and flankes, vvhich commeth of some fall that the beast hath taken in some hard and stonie place, and vvhich happeneth not without the companie of a contusion, appoint that the Oxe which hath fallen, so soone as he commeth into his house, doe not remoue from one place, bath the hurt part vvith cold vvater: after that, vse and applie vnto it comfortable liniments and seare-clothes 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 bodie, and that in such sort as that there is not much of them left out to be seene; he stirreth not his hinder legs vvith any ease: and vvhen he is laid, he riseth not but vvith verie great paine. *Inflammation.*

Of verie 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 vvith 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, vvhich afterward turneth to an vleer, and troubleth the gate of the Oxe: the place must be verie deepely scarified, and a sleight fire applied afterward to the places scarified, and againe vpon the places so scorched the sweet oyntment, otherwise called oyntment of Roses, vvith a defensatiue of vinegar and vvater, and so bound vp and rolled. The core once fallen out, the place must be vvashed vvith vrine and vinegar made hot: after this, there must be an emplaister or cataplasme of Melilot made, either of the fore appointed, or of old Swines-grease, vvrought and plied betwixt your two hands. *Paine in the heele.*

If the cods be swolne vpon any occasion whatsoeuer, you shall annoint them euening and morning vvith sweet seame, or else bath them vvith strong vinegar, wherein shall be tempered fine fullers earth, and the dung of Oxen. Some hold it for a naturall remedie to haue the dung of a dogg to cure the swellings of an Oxes genitories, if so that they be often rubbed therewithall. *The cods swolne*

The Oxe is inchanted as vvell as the horse, either by hauing eaten, or by hauing passed vnder the crosse of a charmed straw, or ouer a marked logge: the signes are, he becommeth sad and not cherefull and quicke as he vvas wont at his vvorke, yea he consumeth and pineth away, if there be not prouided for him a verie good remedie: cause him to take downe through his nosthrils; Bitumen judaicum, Brimstone, Bayberries, or Iuniper-berries, all mingled vvith vvarme vvater. *The inchanted or bewitched Oxe.*

So soone as you know that the Oxe is sicke of any disease vvhatsoeuer it be, cause him to take this purgation, the root of the Sea-onion, or Harts-thorne, and of common Salt, all being boyled in vvater, and taken in the same vvater vvarme, 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 yeare, 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 vessel one whole night, and so continuing this for three mornings. *For all the diseases of the Oxe*

The biting of Adders, Scorpions, and Shrews.

If he haue beene bitten of any Adder, Scorpion, or Shrew, or Mad-dogge, it is ordinarie to annoint the wound with Oyle of Scorpions, or with Sope tempered and softened in Vinegar: also some vse to vyash them with the decoction of Butter-burre.

The stinging of Hornets.

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 doe moisten the place with the Oxe his owne driuell.

Against the eating of Buprestus, and the Snaile.

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 meadowes, it so swelleth them as that they burst and die, as we haue obserued in many, in the yere past 1572. Now if the Neat-heard doe perceiue that any of his Oxen or Kine haue eaten any of these beasts, he must make them presently to drinke some Cows milke, or the decoction of drie figs, or Dates in Wine, and withall giue them verie strong Clysters.

Scabs and Vlcers, Cornes, and Apostumes.

For the scabbe, some rubbe them with bruised Garlicke, Sauorie, Brimstone, and Vinegar of Galls stamped in the juice of Catmint, or Hore-hound and Iuie. And as for vlcers, they are rubbed with Mallows stamped in white Wine: and as for cornes and apostumes, they must be killed with strong leauens, onions, lillies, or squils and vinegar, 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.

Paine of the eyes.

For the paine of the Eyes, if they be swolne and puffed vp, there must be made an Eye-salue of the floure of Wheat kneaded with Honie and Water.

Spots.

If there be in them euer a spot or naile, you must take Sal-armoniacke, and make an oyntment thereof with Honie.

The Weeping Eye.

When the Oxe hath his eye continually trickling downe teares, and berayeth all his cheekes with the humour dropping downe from it, take of the pappe that is made with Wheat floure, and make a cataplasme to be applyed vnto the eye. The vvild Poppie, stalke and root, stampt with Honie, seruetb to make a medicine for this purpose.

Paines of the Flankes.

In the paines of the flankes, which oftentimes torment Oxen, you must make a cataplasme of three handfulls of Colewort seed, with a quarter of a pecke of Starch well stamped together, and tempered with cold water, and after applie it vnto the parts pained. The best remedie that can be found for them, is to take of the leaues of Cypres without the boughs three handfulls, and to doe as before, adding to them strong vinegar to worke and dissolue them in.

Paines in the Reynes.

In the paines of the reines, you must let him bloud in the veines vnder the tayle behind, 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 juice of Leekes with warme water, or else with his owne vrine.

Scabs and lice.

For the scabbe, you must rubbe it with his owne stale, and with old salt Butter, or annoint it with Perrosin melted in white Wine. Vnto Lice, you must vse the decoction of the wild Oliue tree with Salt, and you must take away the bladders which he hath vnder his tongue. For the paine of the Lungs, some make him drinke the juice of Leeks with sweet 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 Lyons-paw, or Hellebor.

Shoulder pitcht.

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

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

and lay vnto the diſeaſe an emplaiſter made with an Oxe marrow and ſewet of a male Goat, molten in equall portions in Oyle and Tarre, or melted Pitch: as alſo to rub the ſwelled part with a collop of Bacon, without anie 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 daies.

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 Hogges greaſe.

The skin cleauing to the bone

If his hide cleaue to his bones, you muſt bath him with wine, either alone, or mingled with honey.

The halting Oxe

If he halt by taking cold on his feet, you muſt waſh them with his owne ſtale, old and warme: If it come through aboundance of bloud falling vpon his paſterne and foot, it muſt be diſſolued by rubbing it hard and ſcarrifying it. If yet it will not away, and be notwithſtanding but newly fallen downe, you muſt cleaue the horne of the hoofe at the tip 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 ſinew, hauing taken a blow by ſome other beaſts heele, then you muſt bath his legges with oyle and ſalt. If it come with anie ſwelling in the knee, you muſt bath it with vineger made hot, or with the decoction of Millet and Linſeed. In all ſuch haps, you muſt burne with a hot yron the part diſeaſed, and then put vpon it freſh butter waſht in water and vineger, and after in the end to make an oyntment with ſalt butter and the greaſe of a male Goat. If it grow vpon anie ſplint, or daſh againſt anie ſtone or ſtocke, you muſt bath the place with hot ſtale, and lay vpon it old Hogges greaſe melted in Oyle and Tarre. And there is nothing that will more keepe them from halting, than to waſh their feet with cold water ſo ſoone as they be vnyoaked, and after to chafe them with old Hogges greaſe.

The horne cleuen.

If the horne cleaue or ſhiuer, you muſt firſt foment it with vineger, ſalt, and oyle mingled together: after put vpon it old 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 anie way ſundered.

The hornes of his hooſes fallen off.

If an Oxe doe put forth new and young clawes, his hoofe being fallen off, then make an ointment with an ounce of Turpentine, an ounce of Honey, 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 boyled with honey: or elſe applie thereto a Cataplaſme made of Aloes, honey of Roſes, and halfe an ounce of Allome made in powder.

Buffles, or wild Bulls.

Buffles, or wild Oxen, called Buffes, are better for drawing of a Load, than in the turning of the Ground; for they are neuer ſo free, nor yet ſo ſtoutly ſtanding to their worke: cleane contrarie to the Oxen of France, which are fitter for the tilling of the Ground, than for the Cart, as being more ſtrong, more nimble, and fitter to toyle ſo great diuerſitie of Grounds as we haue in France, whether they be Mountaines, tops of Hils, Valleyes, void Fields, or Plaines: to be brieſe, where Ground is ſoft, rough, light, hard, white, black, and of diuers natures. In Italie, about Piſa and along the Marenne (as it is there called) their Buffles, of which they haue great ſtore, are imployed in Draught, being faſtened 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 vnſauorie taſt: but when it is cut in ſlices, and fried in a pan, it is ſauorie. Wild Oxen, which are called in Prouence & Languedoc Brans or Branes, are not fit for anie thing, by reaſon of their great furiouſneſſe & wildneſſe, except only for the ſhambles. Such Oxen are brought vp in the fennie places of Lamargues, and vpon the Sea-coaſt, farre from the haunt of other beaſts, or walke of man.

Oxen called Brans.

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 heards of other beaſts, and acquainted with men, is not good or profitable for the plough, for that he is too ſturdie, & wil not match himſelfe with gelded Oxen.

Neither

The time for the Kine to take the Bull.
One Bull for threescore Kine.

Neither yet is there anie 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 moneths of May, Iune, and Iuly: and one Bull is ynough for threescore Kine.

To fat Oxen to sell.

The Oxen intended to be kept to be fatted and sold, shall not draw but some once or twice a weeke, and 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 burthens, onely to exercise them: and they shall eat nothing but Barly, Hay, and Sheaues, and sometimes the young buds of Vines, and others, such as they loue: and that Oxe which hath wrought in the morning, shall rest at afternoone. The ancient 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 should take heed. And hence riseth the French Prouerbe, He weareth Hay on his horne; pointing out a hot and 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 hearts desire.

An old Oxe.

When as once the Farmer doth perceiue that his Draught Oxe is vnfit for labor, he shall feed him sometime, not letting him doe anie thing: after which, he shall kill him and salt him in pieces, for the yearely 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 he shall haue need: for the marrow of the Oxe doth verie much good in resoluing and softning hard tumors. The gall of the Oxe is yet better than that of the Bull: it doth throughly heale the vlcers of the fundament, mixed with the iuice of Leekes: being drope into the eare, it doth take away the buzzing of the eare: being rubbed about childrens nauels, it killeth the wormes: being mixt with honey, it is good for the inflamation of the throat: mixt with the iuice of Beets, and drawne into the nose, it putteth away the fit of the falling sicknesse: it is more profitable than anie other thing to giue a yellow die and colour vnto Skins and Brasse: being scattered & sprinkled vpon seeds, it maketh that the reaped corne will not be deuoured or eaten with Mice.

The stone of the Oxe gall.

There is sometimes found in an Oxes gall a stone of the bignesse of an egge, and of a yellow colour, which giuen in drinke, is verie good against the Stone and Iaundise: applyed vnto the nosthrils, it maketh the sight more cleare, and hindereth the falling downe of rheume vpon the eyes. 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 tumors, mitigateth the paine of the Sciatica, and maketh a great deale lesse the swelling called the Kings euill: mixt with vineger, it wasteth tumors comming of a Dropsie: being fried in a panne with the flowers of Camomill, Melilot, and Brambles, and applyed vnto the swolne Testicles, it restoreth them vnto their naturall proportion and bignesse.

The dung of Oxen.

Chap. XXIIII.

Of the Hogheard.

The Hogge a greater feeder than anie beast which is for mans food.

AMongst all Cattell seruing for food, the most rauenous, the most filthie, and the most harmefull (that is to say the Swine) is had in great estimation, and much commended amongst vs for the sweetnesse of the flesh, whiles yet it sucketh and is young, both for the Sowce and salted parts thereof, as also for the Lard, the Skinne, and the Bristles thereof. The rauenousnesse and greedie feeding of this Beast, is witnessed by the Sow which the French King killed in hunting, within whose bellie were found six pailes full of Grapes. Their filthinesse and stench, their wallowing of themselues, their eating of stinking and filthie things, as also the harme that they doe, may be answered and proued by their rooting vp and vndermining of Walls by the foot and bottome, the trampling which they

Six pailes of Grapes found in the bellie of one Sow.

they keepe about Trees, Medowes, and vnſowne places. For this cauſe, in a Farme of great reuenues (ſuch a one as wee deſcribe in this place) there needeth a ſpeciall man onely for that purpoſe, to gouerne and guide them in the fields: euen ſuch a one as knoweth to dreſſe and order his Heard in good time, and in cleane and cleanely ſort to put the Pigges that are wained, in one place, with the Bores and Hogges; and the Sowes, with their young ones, into a ſecond place by themſelues: and yet further, the ſicke and diſeaſed into a third particular place by themſelues. Freſh ſtraw often-times giuing them, and renewed, doth fat them as much as their meat: And you muſt take care, that their Troughes be alwaies cleane: And againſt variable weather, the Hogheard muſt haue in ſtore much Acornes, Beanes, Crabs, or wild Peares, or ſome other rotten Fruit, or ſome manner of Pulſe, or ſome Waſhings of Veſſell: and for want hereof, ſome ſteept Barly, together with Bran and Coleworts, or boyled Turneps, or great Nauets, to offer vnto them. And euerie day when they come from the field, let the Huſwife procure in readineſſe for them ſome daintie hot meat; as Whay, the droppings of the Cheeſe mingled with Bran and Water, hauing firſt had three or foure boiles together: for beſides that, this good attendance will cauſe them to make haſt home, and not to forſake their companie to runne ſtragling abroad, when the Hogheard would haue them to come home: Theſe hot drinkes and meats doe alſo heat the cold meats which they ſhall haue fed vpon in the field all the day 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 meat be not cold, nor too thinne, leaſt it cauſe them the flux of the bellie.

The commoditie of freſh ſtraw.

Swines meat.

There is alſo two other Foods, which are verie naturall and excellent for Hogges: the firſt whereof is Ale or Beere Graines, that is to ſay, after your Malt hath beene ground and maſht, and that you haue drawne both your beſt and your ſmaller drinke from it; then with the remaines, mixt either with Whay, Buttermilke, Waſhings of Veſſels, or ſuch like, you ſhall feed your Swine twice a day, and be ſure to fill their bellies. This food will preſerue and keepe them in good plight and liking: and though it will not fatten, or make them readie for ſlaughter, yet it will hold them in good fleſh, and prepare them ſo well for feeding, that with leſſe coſt you may make them ſeruiceable. The ſecond is Chaundlers Graines, which is the dregs, skins, and other ſubſtances, which at the melting of his Tallow will by no meanes be diſſolued: theſe you ſhall mixe with the Swines Waſh, being a little warmed, and giue him a good meale thereof three times a day, and it will fatten him exceedingly, and in verie ſhort ſpace.

Alſo if you take raw Malt when it is almoſt readie to goe to the Kilne, and as the Husbandman ſaith, is only well comed, and with it feed your Swine, there is nothing in the world that will ſooner fatten them: for beſides that it is a great feeder, it feedeth and maketh both the fleſh and fat exceeding white, and pleaſant both to the eye and taſt: Only this obſeruation you muſt euer hold, that when you haue fed your Swine to his full proofe, with what food ſoeuer it be that you feed them, that then you harden that fatneſſe, by giuing the Swine good ſtore of drie Peaſe or Beanes foure or fiue daies before he come to ſlaughter: for without it, the fat will conſume in the pot, and the fleſh will much leſſen. Now during the time that you feed your Swine, it ſhall be good that once or twice you giue them good ſtore of Veriuice and Radle or red Oaker mixt together: for this will not onely ſtay the flux of the bellie, but alſo cleanſe and preuent the Meazle, which is verie incident, and generally happeneth to all Swine in their feeding. Alſo you ſhall note, that the Husbandman is of opinion, that you cannot ouer-feed or make your Swine too fat: for (ſayth he) the fatter your Bacon is, the more is your profit, and three bits of ſuch Lard ſhall ſooner cloy and fill the bellie of a hynde, than a whole Gammon of ſuch Bacon as is halfe fed, and hath the leane thereof equally mixed with the fat together. Whence it commeth, that the thriftie Husbandman will ſeeke all meanes, both by Maſt, Corne, Hippes, Hawes, or anie other meat, to raiſe his Swine to as great proofe as he can anie way compaſſe.

To feed Swine ſpeedily.

Let

The swine cote. Let the floore or pauement of their cote be layed with thicke paning stone, and euerie moneth renewed with grauell or sand to drie vp their pisse, for this beast though he be sluttish and dirtie, doth notwithstanding prosper best in a clean house that is well kept and maintained. And to the end that the corruption of the aire which this kind of beast maketh in close places may not cause him to haue either any ill sent 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 lights of great barres, or clouen bords, to the end that their euill aire may passe away, and that which is good may come in place continually, and it is meet that the doore should giue downe verie neere vnto the causey, to the end that they may not lift it vp with their snouts, and cast it off the hinges: for this cattell can hardly indure to be shut vp, but gnaw and bite with their teeth, whatsoeuer it be that hindreth them from comming forth where they are inclosed.

The feeding of Hogges. The Hogges which you intend to keepe in and to fat, shall not come forth of their stie, being alone and free from others, neither shall 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 cattell, excepted onely the keeping of them cleane, and knowing how to make them good meat, 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 vvere vvithout feeling and power for to moue, in such manner as that though the great height of fatnesse, that they are growne vnto, and the thicknesse therewithall, Mise may sometimes make their nests vpon their backes, and yet they not feele them, for they are sometimes seene to heape such quantitie of fat vpon the liue flesh, as that there are some Hogges found a foot and a halfe thicke of Lard.

Teane bores, for a hundred Sowes. Keepe not aboue ten Bores for a hundred Sowes, and so forth proportionably: the rest as vvell Males as Females let them be wained, and gelded after a yeare old, or sixe moneths at the least, howbeit the most infallibe time and opportunitie is, vvhen they begin to grow hot, and goe a brimming. Suffer not aboue eighteene Pigges ordinarily to sucke one Sow, but sell the rest at eight or ten daies old: and a yeare after, waine and geld the rest, and so put them into the field: keepe 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, his feet short, his thighs great, and in the rest, verie short, grosse, square, and well packt together, of colour blacke or vvhite, and full of bristles vpon his backe, for to make Bores: and those which are verie long, side bellied, great headed, large buttockt, and sides giuing out, likewise all of white colour, a small head, and short legges, for your Sowes: of the rest make prouision for the house.

Eighteene pigs to one Sow.

Signes of a good Hogge.

The time for the Sow to take Bore. Let not your Gylt goe to bore, till she be past a yeare old, and let the Boore be betwixt three and foure: for after he be past fiue, he must be gelded to be fatned. The time to put your Sow to the Bore, whether it be to breed, or to put vp to feed, is best in the first quarter of the Moone, and vnto the full, for before it is not good, no more than 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 Pigges may grow to haue some strength, and may be vvell growne and thicke of haire by September: for Winter Pigges are hard to reare, and not so kind as the other: because this kind of cattell is more chill than the others, which is the cause that in many places they haue their cote and stie prouided and dressed with lime and straw, although they haue sufficient store of stone, lime, sand, and plaster: you must also beware that the Boore keepe not companie with the Sows that are with Pigge, for he would but bite them and cause them to cast their Pigges.

The hog cannot abide hunger. Sowes eating their owne pigs and children. This beast is a great eater, and cannot endure hunger, especially the Sows, which in this necessitie haue beene seene sometimes to eat their owne Piggs, and those of others, as also children in their cradles, which is no small inconuenience: and therefore you must haue care that their troughs be neuer emptie.

For

For to make Hogges verie fat, you must geld them. It is best to geld them in the old of the Moone, in the new, or in the wane, and in the Spring, or September, the time being temperate. If you geld them young, the flesh will be the better, but then they grow not so much: If you geld them, growne somewhat bigge, they grow a deale more, but then the flesh is not so good: And therefore it will be good to doe it when they are betwixt foure and sixe moneths old, and at the most not to goe aboue a yeare. They are subiect vnto manie diseases: And the Hogge is knowne to be sicke, when hee hangeth the eare verie much, and doth become more slow and heauie than hee hath beene accustomed; or that he is found to be without appetite: For your better certaintie, when there doe not appeare anie 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 root, hee is sound and healthfull: but and if that they be bloudie, or otherwise spotted, he is sicke.

The time to geld Hogges.

How to know the diseases of Hogges.

But he is subiect especially to be meazled, because of his much and filthie feeding: and this is the cause why some doe search the roots of his tongue, and others behind 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 fore-fathers made it not an ordinarie thing to eat, and that the Iewes doe abhorre to eat it at all. This disease is not cured but with great difficultie: notwithstanding it will in some sort be cured, if his Stie be euerie day made cleane: if he be suffered to walke and goe into the fields in the fresh aire: if he be caused to bath or wallow himselfe oftentimes in Sea water, or salt water: if he haue Bay-berries beaten and mingled amongst his meat: 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 meazled: as if there be found vnder his tongue blackish pustules: if he cannot carrie himselfe vpright of his hinder legges: and thirdly, if his bristles, puld off his backe, shew bloudie at the roots. Likewise, for that the Hogge, by reason of his filthinesse, for the most part hath one fault or other betwixt his skinne and flesh, how sound soeuer he be; it is good, after he be killed, to haue his haire swinged off with straw, rather than to scald them off with hot water: for the fire doth draw out a great deale more easily than warme water that, whatsoeuer it is, that may be betwixt the skinne and the flesh. Yet the scalding of Hogges keepeth the flesh whitest, plumpest, and fullest, neither is the Bacon so apt to reast as the other; besides, it will make it somewhat apter to take salt: howsoeuer, if it be for Porke, then you must necessarily scald them, because the fire will else harden the skinne too much, and make the flesh vnkindly: besides, the swindging of Hogges leaueth the roots of the haires in the skinne, and the scalding bringeth them forth, which makes the flesh the better.

The meazle in Hogges.

The way to cure the meazle Hogge.

Signes of the meazled Hogge.

It is better to burne than to scald hogges.

He is also subiect vnto the paine and swelling of the Spleene, and to the Murraine, which in contagious times doth a great deale the more easily seize vpon foule and filthie bodies, and such as are of a bad feeding.

Subiect to the Murraine and swelling of the Spleene.

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

Lacke of appetite.

For the Ague, he is to be let bloud in the taile: and for the Rheume and swelling of the kernels of the necke, or yet when he is but suspected to be meazled, he is to be let bloud vnder the tongue.

Physicke for Swine. Ague, Rheume.

For paine and swelling happening vnto him in the time of Fruits, when there is great store, and that he feedeth his full vpon the rotten, he must be caused to eat old Capers well scoured from salt through branne and water; as also much Coleworts, as well red as others: and some doe make him a speciall meat of Tamariske.

Swelling.

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

Scabs.

If

The eating of Henbane or Hemlocke.

If he haue eaten of Henbane, which ancient men haue called the Hogges beane, or else of Hemlocke, he must be made to drinke the decoction of wild Cucumers well warmed, for to cause him to vomit.

Thirst.

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 dyrt at his pleasure; for thirst causeth him to become poore and leane and in weake estate.

Swine honored of the Egyptians.

The Egyptians doe greatly honour the Swine, and giue him manifold thanks for hauing first shewed them the manner of tilling the ground, by cleauing and cutting of it with the fore-part of his snout, and as one that by little and little hath taughe them to make the Ploughs culter. In like manner, they which dwell in low and soft places along by the Riuer Nilus, haue no encrease of the earth but what they toyle and labour out of the same with the Plough: but the Peasants doe nothing but put their Swine into their Fields, and goe after them with Seed; and because that Swine haue the gift to digge vp the earth with their snouts, and to tread in the Corne with their feet, they vse them to ouer-turne all their Ground out of hand, and so to couer the Seed which the Countrey people haue cast vpon the same.

Hogges grease.

Furthermore, the good Householder (besides the good prouision that hee shall make for himselfe and his familie of the Porke cut in pieces, and well salted in his Larder) shall further gather his grease for the axle-trees of his Waines and Carts. Againe, the good Huswife shall make her profit of it in like manner for the diseases of her familie, 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 moles of the heeles, if the powder of Galls be mixt therewithall, and the ashes of the flower of Barly.

Swines dung.

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 lumpes of cluttered bloud, spet out by him that bleedeth aboundantly, being giuen to the partie so bleeding to eat, doth stay and stop presently his spetting of bloud.

To powder Swines flesh.

It remaineth that we 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 deferre to salt it, so much the more time and fire must it haue to boyle it when you should vse it: and for this reason, a Sawsidge, or such other like meat, doth become lesse by a quarter when they are boiled. For this cause also it is, that the skilfull Husbandman will not buy these kinds of beasts to make his prouision of, if he be not sure that they were borne in the encrease of the Moone: for otherwise also they doe grow but little, and their flesh is not of sufficient weight when as one hath killed them. Kill therefore your Swine in the encrease 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 killed. Now when you haue thus killed them in their thirst, and halfe famished, it shall be for the best to take out as manie of the bones as you can, for this will 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 manie beds of salt grossely brayed as there is of flesh, the one aboue the other: And when the salting Tub shall be in a manner full, you shall fill vp the head with salt, and presse all downe together with verie heauie weights. Some put these pieces and the salt within a table-cloth, or within a sack that hath two mouths, 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 pieces to cause it to take salt; neither do other some put it in salt brine in a close powdring Tub: but

To kill Swine in the encrease of the Moone.

but after that they haue made it into pieces, they diuide all the Lard 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 day, but at two or three times, and in two or three dayes space: after they hang them to the roice of some boorded floore, or to the crookes set vp in some vaulted roofe, if so be there be anie vault; and the Lard thus salted, is more fast, and of a better tast: And if it fall out to be long kept, and to passe a yeare, 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 than after anie other fashion that hath beene spoken of heretofore.

Chap. XXV.

Of the Shepheard.

IF the greater part of the profit of a Farme depend vpon and consist in the keeping of Cattell; which is performed by that part of encrease 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 Countrey House is of such beasts as bring forth Wooll. It is true, that there must all diligence be vsed to keepe them from Cold, from the Purples, from the Scab, from two much rankenesse of bloud, from the Rot, and other such inconuenences as sometimes spread and proceed from one to another, and that he hath likewise care, and doe his whole endeauour, in keeping them both in the Fields and at the Cratch: but it is as true that there riseth as great profit and commoditie to the Farmer. For besides the dung which they make, and which exceedeth all other kinds of dung in goodnesse, for the great substance, strength, and heartening which it giueth vnto the ground, they bring yet infinite other commodities: as by Wooll, whereof are made Cloth, Hats, Caps, and manie other stuffes: by their Fells, 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 afford: 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 said of it, that if the flesh of this Beast were as scarce as that of the Fawne, Hind, 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 forth Wooll, and not lightly to be passed ouer of the Husbandman; namely, that there is not anie one of them which is not alwaies readie, and of present imployment, and whereof there are not moe buyers than sellers, so that the Husbandman need not doubt of anie long staying for the sale thereof. For first of all, the Dung is in imployment the verie first houre; the Wooll no sooner shorne, but it is greedily catcht vp; and so soone as the Mutton is flead, you haue a chapman for the flesh, and another for the Fell: The Cheese will either serue you at your Table, or else the Marchant. But and if you be not disposed thus to retaile the seuerall commodities of this beast, you shall find chapmen to buy them in grosse: Which is yet more, if you be not able to abide vntill they be full growne, and in their ripest season, to be made mony of, yet then may you find 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 than ouer anie other of his Cattell. Wherefore he shall see his Sheepe-house in the highest part of his Court, right in the face of the South Sun, to

The care of prouiding Sheepe, and the profit thereof.

The profit of Sheepe and Mutons.

The seating of the Sheepe-house.

to the end it may be the lesse annoyed with moisture, and more open to a wholesome aire: which shall be of such length, as that his flocke may haue roome therein without treading one vpon another, setting it round about with Mangers or Sheep-racks of a low pitch for to fodder them in. There shall be a floore of sawed boords betwixt the Sheepe roome 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 heat, pierce downe vnto the skin, and make them cold. He shall haue a Shepheard for to guide them, which shall be gentle, louing his flocke, nimble, of a loud voice, and able to whoop well, giuen to take pains, able to reckon, and by nature enclined to good and honest things: for there are but few of this profession now adaies (especially neere to Townes and Cities) but that by their slouthfulnesse and great leysure doe giue themselues to some euill deuises, practises, and malice, rather than to the good and profit of their masters: so that of them ill disposed, we daily see to ensue and grow manie thefts, filching and pilfering prankes, out-rodes, witchcrafts, and infinite other mischiefes. On the contrarie, the first Shepheards of Egypt and other places were the bringers to light of Astrologie, Physick, Musick, and manie other liberall Sciences: and I know not whether I may father the worthie art 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 Cotages and Cabines made of boughs manie yeares, obseruing at leysure the courses of the Starres, the dispositions of the Seasons, and by long vse and obseruation marking the goodnesse and prosperousnesse, 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 witnesse the same. To conclude therefore, there is great care to be had in the chusing of a good Shepheard.

Shepheards 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 gray or spotted Wooll partie-coloured, because of the vncertainetie of the colour. He shall reiect as barren all such as haue teeth of moe than three yeares, and he shall make choise of them of two yeares, hauing great bodies, long neckes, long deepe Wooll, silken, small, and bright shining: great bellies, and couered with Wooll: great paps, great eyes, long legges, and a long taile. He shall much esteeme the Ramme which is tall of bodie and long, which hath a great bellie, and couered with Wooll, a long taile, and a thicke fleece, a broad forehead, and thicke set with haire, blacke eyes, and beset with strong Wooll, grosse stones, large loynes, great eares, and couered with Wooll of one colour, not diuersly coloured in anie part of his bodie, well horned, and notwithstanding but small hornes, wrythen and turned backe rather than strait and open, his tongue 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 tongue, howsoeuer he may be of a white Wooll, notwithstanding, the Lambs which he shall ingender will haue mingled and spotted coats, either with blacke or gray, and so by this meanes will become of lesse account and profit.

The signes of a good Ramme.

A horned Ramme.

Although the horned Ramme hath this discommoditie, that finding himselfe armed by nature, he seeketh to doe nothing more than to fight, and is so much the more earnest with the Sheepe, vrging them mightily thereunto: notwithstanding, he is much better than one without hornes: for he knowing himselfe without hornes, is not so readie to fight, and is also lesse hot by nature, according to the traditions of France: but according to the experience of other Countries, the Ramme without hornes is the best for breed, being best shaped, best woolled, and best mettalled, hauing beene often seene to haue slaine with his bare head him that hath beene more than extraordinarily armed, with great, spacious, and round twyned hornes. Besides, the Ramme without hornes begetteth his young without anie danger to the Ewe in her yeaning, whereas the Ramme which hath hornes, begetteth his Lambes with such hornes, that the damme dieth oft before she be able to yeane it.

The Ramme without hornes.

The best Ramme

Now

Now the Shepheards are wont 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 boord, stricken full of naile points on the side toward his forehead: for such a one will keepe them from pushing one at another, seeing they cannot iurre but that they must hurt themselues: or else they bore their hornes through, neere vnto the eares; for so are some Shepheards accustomed to doe. *The rage of a Ramme.*

The Sheepe-cote, as well as the Swine-cote, shall be paued with pauing stones, and made to hang ouer the Court towards the dunghill pit, where must be set some Rosemarie of Beaux, in respect of the smell of the sinke conueying their pisse. It must be situated (as hath been said before) vpon the South: for these Cattell, howsoeuer they be well couered by Natures worke, are notwithstanding such as cannot endure or away with Cold, and as badly can they abide the heat of Summer: and therefore they must haue made for them a long house, verie low, and sufficient wide. The situation of the Mangers shall be about a foot and a halfe from the floore: and there shall be high straight poles, and set thick, made fast vnto the said Mangers, that so the Sheepe may be kept from going on the other side of their racks. The Shepheard shall keepe his racks and hurdles for void 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 anie case fall, and that so the Rammes may not goe vnto the Ewes, nor the Lambes vnto the diseased Sheepe. He shall be carefull to make his Ewes take Ramme after the first two yeares, for the space of the next fiue after ensuing; for when the seuenth yeare is once past, they begin to faile and wither away: and againe, the female taking Ramme before she be two yeare old, bringeth forth a feeble and a weake brood, without anie strength; but and if shee bring forth before that age, you must sell her Lambes: The Ramme 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 end that the Ewe which goeth with Lambe fiue moneths, may Lambe in the Spring, in which time she shall find the grasse beginning to spring, and so shall returne home with her Vdder well filled, to suffice for the feeding of her yong: which will be growne to good perfection by Easter; at which time the Butchers will be readie to buy 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 anie such water, because it would cause her to Lambe before her time. If the Farmer desire to haue manie Weather Lambes, it will be good, according to the counsell of *Aristotle*, to obserue and spie out a drie time when the Northerne wind bloweth, and then to cause the flock to feed, drawing directly vpon the same wind; and in that verie time, and after that sort, to make the Ewes take Ramme: but and if he would haue manie Ewe Lambes, he must draw them to feed vpon a Southerne wind, and so let the Rammes couer them. *The office of a Shepheard.* *To haue manie Lambes.*

When the Ewe is in Lambing, care shall be had to helpe her if need require, drawing the whole Lambe out of her bodie, if it lie ouerthwart, and cannot come forth: For this poore Beast is pained in Lambing, as Women be in bearing of their children; and oftentimes (being void 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 teats of the Ewe, thereby to vse it to sucke the damme: 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 damme 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 know her. In the meane time, care must be had to feed the Ewe with the best Hay that may be found, and with a little Branne and Salt amongst: to keepe her in a house verie fast and sure, and not to suffer her to goe forth of three or foure daies: to carrie her water to drinke, a little warme; and wherein is mixed a little of the flower of Millet and of Salt: to draw from her her first milke, *The Lambing of Ewes.* *The ordering of young Lambes.*

milke, becauſe it is not good. And ſo ſoone as her Lambe ſhall begin to know her, ſhe may be let looſe to goe feed 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 damme at her comming home and going to the fields. And after that it ſhall be growne a little ſtronger, you ſhall giue it, within houſe, ſome Bran, or verie ſmall Hay, and that the beſt that is to be gotten, to keepe it occupied with all the time that the damme is in field.

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

The wiſe Shepheard will not keepe, for to ſtore his flock, anie other Lambes than ſuch as are the groſſeſt, moſt corpulent, & 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 ſickneſſe.

To geld Lambs.

The wiſe Shepheard will not geld his Lambes till they be betwixt fiue and ſix moneths old: and for to geld them, he ſhall vſe the meanes ſet downe in the gelding of Calues. In Winter hee 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.

Fodder for Sheepe.

For want of Corne-ſheaues, he may fodder them with the greene boughs or leaues of Elmes, or elſe of the Aſh 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 Countrey, and being a thing ſo much deſired and ſought after of the Goats, 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 anie other thing, but that all other manner of Fodder is gone, and not to be come by.

What time Sheepe ſhould be carried to paſture.

As concerning the time when they are to be led forth to feeding, in Winter, Autumne, and Spring time, you ſhall keepe them cloſe in the morning, and you ſhal not carrie them to the fields, vntil the day haue taken the froſt away from off the ground: for at theſe times the frozen graſſe doth beget in them a rhewme and heauineſſe of the head, and looſeneth their bellies. In Summer he ſhall carrie his flocke to the freſh paſture by the point of day, when as the tender graſſe is couered with the dew: and toward noone he ſhall looke out either vaults 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 Foreſts and place of tall Timber trees, which giue a ſhadow. And in as much as this Beaſt is verie tender aboue the head, and is greatly offended by the Sunne, he ſhall be carefull in Summer, during the great heat, to obſerue when the Canicular daies begin, that ſo before noone-tide he may draw his flocke to feed 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.

To water Sheepe.

In cold and moiſt weather, as in Winter and Spring time, he ſhall water them only once a day, but in Summer twice, that is to ſay, foure houres after Sunne riſe, and at night, after the heat is rebated and well ouer-paſt.

A gentle Shepheard.

The Shepheard ſhall order and gouerne them with great gentleneſſe, as it is moſt requiſite for all Heards of whatſoeuer Cattell that it be, who muſt rather be and ſhew themſelues leaders and guides of their beaſts, than lords. Guiding them to the field, he muſt alwaies goe before them, to hinder and keepe them backe from running into fields where they might feed vpon euill and hurtfull graſſe: and eſpecially ſuch grounds as wherein the water vſeth to ſtand, or where the ground hath beene ouer-waſht with ſome Floud, and breaking forth of ſome Riuer, becauſe that by paſturing in ſuch places, they could not chuſe but in leſſe than fortie daies be teinted, and die, except they were relieued and ſuccoured by ſome good meanes. He ſhall rather keepe a white dogge than one of anie other colour to follow his Sheepe, and he himſelfe alſo muſt be apparelled in white, becauſe that Sheepe

are

are naturally ſo inclined to feare, as that and if they ſee but a beaſt of anie other colour, they doubt preſently that it is the Wolfe which commeth to deuoure them. This dogge muſt haue a collar of yron about his neck, beſet with good ſharpe points of nailes, to the end that he may the more cheerefully fight with the Wolfe, perceiuing himſelfe thereby to haue the aduantage, as alſo that the Wolfe 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 know his call, he muſt whoope and whiſtle after them, threatning them with his Sheepe-crooke, or elſe ſetting his dogge after them, which he ſhall haue trained to doe them that ſeruice: but he may not caſt anie thing at them, neither may he goe farre from them, neither yet take himſelfe leaue to lye or ſit downe: he muſt accuſtome them to two ſorts 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 apply themſelues to doe that, which is thereby commanded them. If he walke not, yet he muſt ſtand, to the end he may be as a vigilant watch vnto his Cattell: and he muſt not ſuffer the Slower, or thoſe which are with Lambe to ſtraggle from the reſt, or come farre behind them, by hanging backe, when the light-footed, and ſuch as haue alreadie Lambed, doe runne before, leaſt by that meanes ſome theefe or deuouring beaſt deceiue them, and come vpon them buſie at their meat. 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 feed the more hungerly, they will not ſtraggle ſo farre abroad, but they will loue him the better.

He ſhall not draw them into anie grounds, but ſuch as are tilled and turned, or to the graſſie tops of Hills, to the high Woods, or elſe ſuch Medow grounds as are not moiſt & wet; but neuer into Mariſh grounds, nor into Foreſts, or other places, whereas there are Thornes, Burres, and Thiſtles: for ſuch doth nothing but make them itchie and ſcuruie, and to loſe their Wooll. Alſo it is not ſo good fodder, nor ſo good feeding, which for long time hath been in continuall vſe: for ſo the Cattell will grow wearie of it, and offended therewith, except the prudent Shepheard vſe ſome remedie againſt it, by mingling ſome ſalt amongſt it, or ſprinkle it with brine or dregs of oyle vpon ſome floure, and ſo with their meat he ſhould giue them both ſawce and appetite.

The Shepheards life in Summer.

In the high time of Summer, the Shepheard ſhall come with his flocke to their lodging, and ſhall fold them amongſt the fallowes, and there make his fold with hurdles, after the manner of the Sheepe-cote, the couering excepted: And at the foure corners of his fold he ſhall tie his dogge for a ſentinell and ſtanding watch, lodging himſelfe in the ſaid fold, within his Cabin of Wood, which he ſhall driue vpon wheeles to and fro, as he ſhall haue occaſion to change his field and fold. He ſhall cleanſe his Sheepe-cote but once a yeare, and that ſhall be preſently after Auguſt, or elſe in Iuly, being the time when his Heard is folded: but neuer in Autumne, nor in Winter, for then their dung will ſerue to keepe them warme. And then forthwith the Farmer ſhall cauſe the ſame dung to be carried vnto the leaneſt parts of his land, and ſhall leaue it there on hillocks to drie in the heat of the Summer vntill October, and then to cauſe it to be ſpread vpon 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 anie Marle but from fiue yeares to fiue yeares in anie place. It will be good after that the Sheepe-cote is made cleane, to perfume it with Womens haire, or Harts horne, or the hornes of Goats clawes, thereby to driue away Adders and Snakes, and other beaſts, which oftentimes annoy this kind of Cattell.

The cleanſing of the Sheepe-cote.

Shearing time.

He ſhall procure his Sheepe to be ſhorne the firſt hot ſeaſon falling out in the Spring, if it be in a hot and Southerly Countrey; but in the Countrey that is cold, and not ſo warme, about the end of Iuly: but neuer in Summer, or in Winter, and but from eight a clock in the morning vntill noone, and that in faire weather, without

wind, and the Moone growing old. Afterward you ſhall ſtrake the ſhorne Sheepe all ouer their skins with your drie hand, moiſtened in oyle and wine mingled together, to comfort them withall: and if there be anie ſnips in their skins, you ſhall apply vnto them melted Wax or Tarre with ſweet Seame, for this doth heale them and keepe them from the ſcab, and cauſeth alſo a finer and longer Wooll to grow 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, & 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 anie time drinke ſoone after this meat.

The diſeaſes of Sheepe. 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, & alſo infecting: for one of them hauing anie 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 ſtraw, giuing them that which is long & ſmall, and perfuming their Cote with Tyme, Roſemarie, Iuniper, Pennyryall, Marierome, Balme, Coſtmarie, Baſill, and other ſweet hearbes, manie daies together: and preſently you muſt giue vnto the other Salt, with a quarter of a pound of Brimſtone mingled together, which wil purge them and heale them of the infection. Theſe diſeaſes happen them through eating of euill hearbs, or drinking of ſtanding water, or for that the place where they feed, hath beene ouer-waſhed with ſome floud or great ſtreames of water, in which caſe they neuer faile to fall ſick in leſſe than fortie daies: wherefore to meet with ſuch inconueniences, the good Shepheard muſt goe euerie day before his flock, and keepe them from going into the fields, where he knoweth that there is anie occaſion for them to incurre anie ſuch inconuenience.

The ſcabs of Sheepe. For the Scab in Sheepe, you muſt make an ointment of the powder of Brimſtone, of the root of Cypreſſe as much of the one as of the other, mixe them with *Rhaſis* his white Ointment, Camphire and Wax 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 verie 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 oyle of ſweet Almonds, and a little white Wine, being warmed together, and giue them freſh ſtraw, and cauſe them to feed vpon Folefoot; for it is commonly in the Spring time that they are troubled with this diſeaſe: but and if it ſhould happen at anie other time, there may a little Fenigreeke be giuen them, beaten with Cumin, and of the powder for Horſes. The hearbe called Knot-graſſe is verie bad for Sheepe: for and if they eat anie of it, all their bellie is ſwolne and blowne vp, frothing out a thinne and verie ſtinking humor. You muſt preſently let ſuch bloud vnder the taile, in that place which is neere vnto the buttockes: In like manner, it will be no leſſe good to let them bloud vpon the veine which is in the nether and vpper lippe.

To preſerue Sheepe from the rot. But to make ſure to preuent the dangerous and common diſeaſe of the rot, which being once caught, is after impoſſible to be cured; you ſhall in the morning, as ſoone as you driue them from the Fold, or bring them from your Sheepe-houſe to the place where you would haue them feed, with a little dogge chaſe them vp and downe the ſpace of an houre and more, till you haue (as it were) almoſt tyred them, and then let them reſt and fall to their food at their owne pleaſure: And thus you ſhall doe in the euening alſo; the reaſon whereof is this: In the morning your Sheepe comming hungrie from the Fold, and finding the thicke Dew, Cobwebs, Meldewes, and ſuch like filthineſſe vpon the graſſe, they will with all greedineſſe deuoure and eat it, than which, nothing in the world ſooner procureth rotting: Now being thus chaſed wearie, they will not onely with their feet beat that corruption from the ground, but alſo, through their wearineſſe, forbeare to eat, till ſuch time as the ſtrength of the Sunnes beames haue exhaled and drawne away thoſe fogges, and made the graſſe both pure and wholſome: by which experiment it hath been approued, that where ten thouſand

haue

haue died for want of this exercise, not one hath quelled which hath beene vsed in this manner.

For a short breath, you must slit their nosthrils, as is vsually to be done vnto horses; or else cut their eares one after another. *Shortnesse of breath.*

Vnto the sheepe which haue the ague, it is good to be let bloud in the heele, or betwixt the two clawes of his feet, 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 many other diseases, is to cause to be boyled in Water and Wine a Rammes stomach, and giue it them to drinke vvith broth. *The Sheepes ague.*

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 do leaue vpon the edges of the rackes, and licke it away, thereby themselues 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 Toad 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: others say, that Garleeke and fresh Sage must be stamped together, and a drinke made thereof vvith strong Vinegar, vvhether it bee for Horse, or Sheepe, or any other beast: others giue them to drinke a spoonefull of Aqua vitæ, with Mithridate. There vvill no other successe come thereof, but the corrupting of the Lungs, and the Cough which such haue as are rotten. And as for helpe for this disease, there is not any other, but euen the auoyding of them out of the way. *The sniuell, or snot.*

The Cornes which vse to vex and torment sheepe, are healed with Allome, Brimstone, and Vinegar mingled together, or with a Pomegranet whiles it is young and tender, and no kernels growne in it, being stamped with Allome, and a verie little Vinegar: or with gals burnt, and the same shaued and put in grosse, or red wine, and so laid vpon the cornes. *Cornes troubling Sheepe.*

S. 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 Goats, and it is good to shed and remoue out of the flocke the first sheepe that shall be taken with this disease. *S. Anthonies fire 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 turne about, stumble, and leape without any cause, and if you touch their head or feet, you shall find them in a verie great heat. For this you must speedily take a sharpe horne and make incision in the veine which is aboue the nosthrils, and that just in the middest thereof, and as high as possibly you can: hereupon, the beast will presently faint, but come vnto himselfe againe within a short time after, and that sometime to his good, but sometimes (and that doth oftner fall out) vnto his euill. Some Shepheards haue tried the letting of them bloud in some small quantitie 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 bloud in Sheepe.*

For the Plague, there is the like remedies for beasts, 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 vvith such sweet hearbes as hath beene spoken of before, as Penniroyall, wild Balme, Rue, and Iuniper-berries, and oftentimes to make them eat amongst their meat, common Melilot in steed of free and mountaine Melilot, commonly called Cytisus, and of wild Penniroyall: moreouer, Organie, as also wild Balme is good as well for this disease as for the cough. *For the murraine or plague amongst Sheepe.*

If

Lamenesse 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 decayed claw or clawes, and put thereupon quicke lime, tying it on with some linnen cloth, and this is to be continued onely for the space of a day: and then vpon the day following, to applie vnto it some verdigrease, and 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 Horse-leach, then you must put downe into his throte strong Vinegar vvhich is vvarme, or else Oyle.

An impostume.

If the sheepe haue any Impostume in the vpper part of her flesh, then it must be opened, and Salt pouned small and burned, and mixed with melted pitch, must be put into the wound.

Ewes with Lambes.

When the Ewe is with Lambe, if she haue a blacke tongue, it is a signe that she will haue a blacke Lambe, and contrariwise; and so a Lambe partie coloured, if her tongue haue spots of diuers colours.

The wolfe.

The Wolfe will doe no hurt vnto the sheepe, if you tie wild Garleeke vnto the necke of him that goeth formost.

The diseases of Lambes.

It is good also to succour Lambes if they need, as whether they haue an ague, or some other disease: if they be sicke, they must be taken from their dammes, but giue them notwithstanding their milke to drinke, mixt with as much raine water, if they haue an ague. Oftentimes they haue the scabbe 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 rubbe the pallate of the mouth, the tongue, and all the muzzle, and afterward to wash the vlcers with Vinegar, and so to annoint them with tarre and swines-grease.

The itch of the chin.

Sheepes-feet.

Beware of eating any sheepes feet, whereout you haue not taken a worme that lyeth betwixt their clawes, for this worme swallowed downe, doth prouoke vomit, loathing, and great paine of the stomach. As for the rest, the runnet of a Lambe drunken is good against all sorts of poysons. The bowels or lungs of a Weather newly killed, applied vnto the head, is soueraigne against frensies, & for such as are deadly grieued with head-ach. The lungs of a sheepe 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 parts of the bodie so made by rodds of twiggs, 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 Wolfe. The wooll of a sheepe doth appease the aches and swellings of such places as it is applied vnto, so that they haue not been caused of the touch of any Wolues tooth, for so in steed of taking away the paine, it would aggrauate and increase it. And which is more, as *Plutarch* maketh mention in his small workes, the wooll of a Weather or Ewe touched with the teeth of a Wolfe, doth make it apt to ingender rottennesse, 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 Wolfe is so hot and burning, as that it melteth and digesteth the verie bones in his stomach: 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 vinegar doth cure all hanging warts, as hard swellings, whether they be called cat-haires or cornes.

The cunning of Lambes.

The bowels of a Weather.

His lungs.

His skinne.

The wooll of a Weather.

The biting of the wolfe.

Candles of weather sewet.

Now hauing spoken thus generally of Sheepe, their profits, natures, qualities, keepings, and preseruations, we will a little (according to the opinion of *Serres*) wade further into their vse and properties, you shall then vnderstand that sheepe are two waies two fold, first they are either pasture sheepe, or field sheepe; sheepe bred either of a fruitfull ground, and rich leare, or vpon barren ground, and poore leare, your pasture Sheepe are those vvhich are kept in seuerall and inclosed grounds, being either fertile or hard, and haue their preseruation either for breed or the shambles, and the field sheepe are those which are kept on the tylth or fallow fields, or else vpon open and wast commons, and are preserued either for breed or the manu-

Diuersitie of Sheepe.

manuring of arable ground, and those sheepe which are to walke vpon the fallow fields, you shall put to the Ramme rather before than after Michaelmas, that their Lambes may haue strength before May day to follow their dammes ouer the clots and rough grounds, and your pasture sheepe you shall put to the Rammes not before S.Lukes day that the dammes may haue full bit and strength of grasse to feed vp and fatten their Lambes quickly, for the choyce of your sheepe for any of these soiles, you shall take such as agree with the leare and colour of your earth, rather bringing them from a worse soyle to a better, than from a good soyle to a bad; knowing withall, that your fat earth though it beare a great sheepe, and much burthen of vvooll, yet it is but course, and your barren earths, though it beare but a small sheepe, and smaller burthen of wooll, yet if the leare be right, the vvooll will be finest and deerest, except the soyle be verie much cold, or verie much moist, and then the staple will be but hairie, as may be seene in the Northerne and lesse fruitfull Countries. Now for the leares of sheepe, you shall vnderstand that the browne hazell leare is of all other the best, the redd leare next to it, the yellow leare next to the redd, and the dunne dyrtie leare of all other the worst, and least profitable, all manner of sand grounds yeeld good leares, so doe most of your mixt earths, your clays, if not too wet, are reasonable, but your flyntie, grauelly, peeble soiles, yeeld neuer any goodnesse at all, your doded vvhite fast sheepe that is rough and well woolled about the eyes, is euer profitable both to the sheares and the shambles, being commonly of good bone, and good burthen, but the bare or blacke fast sheepe, though he may haue a good coat, yet it is so light that he cannot be held much commodious to either.

Chap. XXVI.

Of the Goat-heard.

SVndrie countries in Europe, and particularly some places of France are to be found, where they haue not the commoditie and benefit of any greater cattell than the Goat, and of this they can make milke meats, much Butter, and more wholesome 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 young ones, they are sold in their season, and make as good meat as any that can be found. And this time is when as birds doe couple and match together, and other beasts goe to rut, for the young ones of this kind being indeed verie young, are apt to be compared vvith the Lambes of the same age. Witnesse to the Cookes and Vittailers, vvhich craftily set the tayle of a Kid vpon the quarter of a lambe, which is found to haue but a skinnie and vnsauorie flesh, without any daintinesse or tast at all saue of the milke.

Chamlet made of Goats haire.

Young Kiddes well esteemed. The coosening tricke of cooks.

The Goat 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 venimous and infectious things, he loueth to brouse the wood of fruit trees: he delighteth to licke the moist walls, and rockes tasting of Saltpetur, in such sort as that you shall neuer see a Goat dye of hunger: he feedeth for the most part of a more solide meat than the Weather, and climeth into higher places, and where the Sunne hath greater power: besides, he is of greater stirring, and more giuen to exercise, and therewithall framed of a more strong and lustie bodie. These haue beene the causes why men in times past haue esteemed them, as they doe yet also in hillie countries: and we for the few that we haue, doe prouide Heards and Houses for them amongst the Sheepe, and wee seperate the male Goats in such sort as vve doe the Rammes. Their house must bee paued vvith stone, eyther by workemen or naturally: for these cattell are not allowed any kind of litter at all, and that because they like it better to lye vpon the bare and hard ground,

The goats vsuall meat and fodder.

Goats are of great request in hillie countries.

ground, than to lie vpon litter: yea and oftentimes they will lie asleepe vpon the verie points of rockes, or vpon the steepe corners of high hills toward the heat of the Sunne, rather than vnder any shadow; 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 carriage. And for as much as we are farre off from Languedoc, Auuergne, and the hillie places of Sauoy, in which this kind 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, than we do 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 Goat-heard.

The painefull Goat-heard shall make cleane their house euerie day, and shall not suffer any dung or moisture therein, or that with trampling they make any dirt, 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, cheerefull, 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 heards doe their cattell, but that he be euerie day before them. He must not be charged with moe than 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 heard with gathering of them together. He shall beware and not suffer them to feed in cold places, for cold is more hurtfull vnto them than any other thing. He shall draw them forth to the fields 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 of milke: and then againe, about three, they are to be sent to the fields, 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 cold, be it neuer so sharpe, they are of so strong a nature. It is true, that if the weather be tedious, or Rainie, or full of Snow, as in Winter, he shall keepe them in their cote, and giue them to eat the tender sprouts 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 before the moneth of December, as he doth the sheep, to the end, that in the Spring, when the trees bud, and the woods begin to put forth new leaues, they may bring forth their young ones. When he would haue his goats to haue good store of milke, he shall giue them to eat ynough fiue-leaued grasse, or shall tie about their bellies the hearbe Dittanie, or else carrie them to feed in some place where there groweth great store of it.

The goats bucking time.

To make the goats to haue much milke.

The markes of a good goat.

The goodnesse of a goat must be esteemed and gathered by these signes. If she be one yeare 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 thighs, rather of a reddish or blacke colour than of a white; for although that some say, that the white doe yeeld more milke, yet the reddish coloured and blacke are more pleasant, frolicke, and merrily disposed: without hornes, rather than horned; for those which haue no hornes, doe not cast their young so soone, and they doe keepe more conueniently amongst sheepe, than those which haue hornes.

The male goat.

The male goat is much to be esteemed if he be not aboue fiue yeare old (for in respect of his heat, which is exceeding great, he doth easily grow old:) which hath a great bodie, grosse legges, a thicke and short necke, hanging and great eares, a small head, blacke haire, thicke, neat, and long, without hornes; for such as haue hornes, by reason of their pushing and eagernesse, are dangerous: which hath likewise vnder his chaps two bearded knobs or kernels.

The profit of goats.

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

and gathered in their coats: the Kids, the flesh whereof is held so daintie: the Goat-skin, whereof gloues are made; as also counterfeit Shamois, drie leather, or Spanish leather, and all the baggs wherein Oyles are wont to be carried in to and fro: the skin of the male goat, whereof are made the best drie 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 find so singular in the curing of bloudie 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 Cow-milke-cheese. It is most true that some doe make them after the fashion of little thin Angelots, and those are the excellent cheeses, which haue beene wont to be made at Nismes heretofore, as *Plinie* recordeth, howsoeuer now at this present, Baus doth carrie away the name.

And now somewhat as concerning the baggs made of Goats-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 head onely close by the necke, and the feet at the second joynt of the leggs: afterward, fleying the rest of the leggs vnto the priuie parts of the beast, to turne the rest ouer all the bodie, and keeping the hairie side outward to salt it three or foure times, and to rubbe ouer all the skin euerie where with salt verie well; afterward, to sew it and make it into a bagge for Oyle, as it may best serue: you must notwithstanding keepe it alwaies full, blown 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 goats hath no such store of fat or oilie substance in it, seeing there is alwaies much adoe to get forth 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.

Baggs made of goats-skins.

Butter of goats milke.

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 Goats are subject, there are three other, whereunto the Goat is subject, that is to say, the dropsie, swelling after she hath brought forth her young, and the drie disease. The dropsie happeneth vnto her by drinking too much vvater, and then you must make incision vnder the shoulder, and draw forth all the gathered superfluous moisture, and after heale the wound vvith tarre. After she hath brought forth her young, if her matrix be swolne, or if she be not vvell purged of her after-birth, you must cause her to drinke a great glasse ful of verie good wine. The drie disease commeth vpon her in the time of hot seasons, as wherein her teats are so dried vp, as that they are like vnto wood for drinesse, and in such case you must rubbe her teats with creame: and as for other her diseases, you must cure them with those remedies vvhich are set downe for the diseases of ewes.

The goat is neuer without an ague.

The diseases of goats.

The matrix swolne.

The drie disease

The good huswife that setteth by the health of her folke, shall not giue any goats flesh vnto her people to eat, except it be in time of great dearth and scarcitie, because the eating of this flesh doth breed the falling sicknesse. Likewise our predecessours had the flesh in such a loathed detestation, as that they would not deine to touch it, no not name it: notwithstanding if necessitie doe force vs to feed vpon it, as many poore peasants dwelling in villages doe (hauing good store of goats, and which onely are the store of their powdring tubs, as also being persuaded thereto through couetousnesse) then they must boyle them in a pot not couered, and in great quantitie of vvater, with good store of spices and cloues, and yet after all this, not to eat it before it be cold, the may gather some profitable thing both of the male and female goat for the health of her familie: For the milke of the female is verie singular for the hardnesse of the spleene, if so be that she haue beene fed any space of time with Iuie. The reddish and bloudlike liquor which distilleth from her liuer when

The flesh of goats.

Goats milke.

Goats bloud. The bloud of the malegoat. The goats horne

vvhen it is roasted, is good for the vveake eyes. The bloud of the male or female Goat fried, stayeth the flux of the bellie. The bloud of the male hardened and dried vp in lumps, is singular against the stone. The poulder of the Goats horne burned, cleanseth and maketh vvhite the teeth: drunke with Rose or Plantaine vvater, it stayeth the bloudie flux. The fume or smoake comming of the burning of Goats horne doth driue away Serpents in vvhat place soeuer that they be. The dung of Goats applyed in forme of a cataplasme doth resolue swellings vnder the eares, in the flankes, the Sciatica, and other Apostumes, especially if it be mixed vvith the floure of Barley, and vvater and vinegar, or with fresh Butter or the dregs of the Oyle of Nuts; vvhich is more, if you giue but fiue trettles of Goats dung with a small draught of vvhite Wine, the space of eight dayes euerie morning, it doth heale the Iaundise.

Goats dung.

Chap. XXVII.

Of the Dogges Kenell.

VNnto the Shepheard, seruing also in steed of the Goatheard, doth belong the charge of the Dog-house, in the ordering of this our Countrie gouernment, as vvell because necessitie commaundeth that he should haue Bloud hounds to fight and chase away the Wolues; Hounds and vvater Spaniels for the purpose of such things as now and then he may meet withall in the fields, or vvhich escapeth vnawares out of the riuers or standing vvaters: as also, Mastiues, vvhich are giuen him in charge by the farmer, as being for the guard and keeping of his house, and of these there shall be one or two vvhich shall be kept fast all the day, chained to some post reared in the Court on the left hand as you goe in, for to giue aduertisement 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 dogges shall be lee 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 vvild beasts, vvhich 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 euerie baking, besides what may come vnto them for their fees vpon euerie purchase either of tame or wild thing. He shall likewise haue care to see to the collars that are requisite about the said dogs he shall see them washed in the heat of the weather for feare they should goe mad: as also that they may 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 Cros-bow or Pistoll, to meet with some wild flesh, if any come in those quarters, which his businesse doth draw him vnto.

To meet with the madnesse of dogges.

I meane therefore that the Husbandman should haue care to prouide three sorts of dogges in his house. The one called the watch dogge, to discouer the secret and couert conueyances of things stolne by men: the second, called the Shepheards dogge, to resist the injuries and outrages offered by men or wild beasts, and to driue them away: the third, called Hounds or Hunting-dogges, and these doe not bring any profit to the Husbandman, but rather may be sayd to hinder his worke, and keepe him from his businesse. But I will onely speake of those which are for the keeping of the house and cattell, and reserue the hunting dogge for to intreat of in our seuenth Booke, vvhere I intend to speake a vword or two of hunting.

Three sorts of dogges needfull about a country farme.

The

The dogge appointed for the keeping of the Farme, must be of grosse and great corpulencie, hauing his bodie 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 bodie, his countenance somewhat resembling a mans, his throat great and wide, thick and great lips hollowed after the manner of valleys, his necke thicke and short, his eares great and hanging, his eyes blacke or Azure, fierie, and sparkling, his breast broad, 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, loud, and fearefull, he must be reasonably fierce, for the gentle doggs doe faune vpon theeues, and the ouer-fierce would not let to leape in the bosome of your familiar friends, and seruants: especially let him be watchfull, & keeping good guard, not a rouer, running hither and thither, but soone satisfied and stayed, 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; or if he be blew, brended, or a darke fallow, not any of these colours are amisse, but shew much strength, valor, and fiercenesse, and are commonly the best breeds of all others, as is to be seene in England, from whence France hath beene onely inriched with all her chiefest Mastiues.

The qualities of a watch-dogge.

The best colours of Mastiues.

The Shepheards dogge needs 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 readie and light: for he is vsed both for fighting and running; intended, that he must watch and hunt away the Wolues, and if they should carrie anie 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 bodie. He must be of a white colour, that so the Shepheard may more easily discerne him from amongst the Wolues, 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 dogge, he cannot chuse but be a good one. Both these sorts of dogges are fed with like meat, as with Wheaten bread, the flower of Barley with Whay, warme broth, and sodden Beanes. The Shepheard which hath this charge, shall not let either Dogge or Bitch engender before they be a yeare old, and not after that they be ten yeares old. He shal take from the Bitch her first litter, for being young and newly acquainted with such matters, she should not feed and nourish them well; and againe, such her feeding of them would hinder her in her grouth euerie manner of way: as also, the dogge of the first litter is of a feeble and weake condition, and for the most part subject to runne madd. Sixe moneths after the Bitch hath whelped, he shall not suffer the Whelpes to goe forth, vntill such time as they become strong, except it be onely to play and sport themselues with their damme, for feare that in attempting to leape hedge or ditch, they doe not burst and beat 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 ynough, they shall haue Goats milke giuen them vntill they be foure moneths old: he shall not call them by verie long name, that so assoone as they be called they may know that they are called. And againe, it is not good that their name should be of lesse than two syllables. When these Whelpes are fortie daies old, he shall breake the tip of their taile, and shall draw out a sinew that runneth along the joynts 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 madd. He shall make his dogges come after him, and the meanes to doe it (as some say) is to giue them now and then some boyled froggs to eat; or to make it more sure to giue them bruised Salt, or else to cast them a peece of bread, which he hath kept a good while vnder his arme-pits, in such sort as that it be a little moystened with the sweat of them, or else to let them smell the after-birth of another Bitch, which he shall haue wrapped vp in a cloth. Likewise he shall learne some peece of cunning to make that he may not be barked at, nor set vpon by other dogges how raging soeuer they be.

The qualitie of the Shepheards dogge.

The meat fit for dogges.

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.

And to effect this, he shall hold in his hand the eye of a blacke dogge pulled from him aliue, or for the more certaintie, the eye or the heart of a Wolfe, or the tongue of a she Wolfe. 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 dastardly. He shall not in any case suffer them to eat 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 vvill they be made to forsake this fault, if once they haue begun to eat raw flesh. He shall frame them in their youth to bring, and the better to teach them so to doe, he shall first cast a prettie way from him a peece of bread. He shall be carefull to heale them when they be sicke. They are subject especially vnto three diseases, madnesse, the squinancie, and the paine of the thighs. Madnesse taketh them in the extreame 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 heat and cold, they haue often giuen them cold water to cole them withall, and to temper the heat of their bloud: or for the more certaintie, whiles they be yet yong, you may plucke from them at their tailes end, a sinew, which goeth along through the joints of the backe bone: Or else to take from vnder their tongue a little sinew which is like vnto a small broad and round worme. To cure them of this disease, so soone as the matter is perceiued, he shall cause him to drinke the juice of Beets, with the pith of Elder tree: or else burne him in the brow with an hot yron: or else to souse him euerie day for the space of fifteene or twentie daies together in Sea-water, three or foure times a day: or else in warme water made salt: for salted or Sea-water hath a singular vertue against the madnesse of a dogge. And these are the signes of a madd dogge: he is more drie and leane than ordinarily he was wont to be, he eateth nothing, neither drinketh, although he seeme to be much altered and starued with want of them; he hateth water more than any thing else, at the sight whereof he falleth into trembling and staring of his haire all ouer his body; his eyes are red and fierie, his looke is aside, sterne, and fixed vpon him whom he beholdeth: he doth nothing but run hither and thither without reason, his head and eares cast downe, his mouth verie much gaping, hanging out a great blacke and wan tongue; foming and driueling at his mouth, and sniuell at his nose; his taile hanging betwixt his legges; 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 maister, men knowne vnto him, or vnknowne, beast, tree, stone, yea his owne shadow: sometimes he standeth still, sometimes he runneth, now on the right hand, now on the left hand: other dogges runne from him, which notwithstanding he fauneth vpon if he meet them, and maketh them afraid.

To make dogs fight.

Dogs may not eat Sheepes flesh.

Doggs diseases.

The Squinancie, and paine of the thighs, is healed and cured after the same maner that it is in Sheepe: notwithstanding the common remedie is to cause them to take a great glasse full of warme Oyle, and after to open the veine of the thigh. For their exulcerate eares comming through fleas, he must rub them with bitter Almonds bruised: For to kill the fleas of dogges, you must rub them with Sea-water, or with brine with vvater, or with the old lees of oyle of Oliues.

The squinancie. The paine of the thighs. Vlcers of the eares.

The other diseases may be cured by the same remedies, which we haue alreadie set downe for Sheepe.

Shut vp a dogge close in some place for three daies, in such sort as that he may gnaw nothing but bones, then gather his dung, and drie it: the powder of this dung is good against all bloudie fluxes, if it be taken twice a day with milke, and so continued for the space of three daies, remembring moreouer before you mixe the said milke, to quench diuers small pebble stones made red hot in the fire in it. This powder likewise is verie singular in maligne vlcers, and those that are giuen to be rebellious: likewise such an emplaister of dogs dung is excellent for the squinancie.

CHAP.

Chap. XXVIII.

Of the Carter, or Horse-keeper.

WE haue heretofore 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 inhabiting 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 Peaſant and Countrie-drudge, and alſo affording great ſeruices to Nobles, Princes, Prelates, and to be ſhort, to all ſorts of men, as being the beaſt which is peereleſſe, for his comelineſſe, beautie, courage, furniture, profit, and commoditie.

Therefore (I ſay) let the Carter or Horſe-keeper, to whom appertayneth the charge of Countrie horſe, be a ſober and patient man, louing 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 cal: let them not at any time labor more than they well may, either in draught or trauell, let him currie them cherefully and merrily euerie 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 feet 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 hoofe: and if they be chafed or heated, or put out of the loue and deſire of their meat, he muſt waſh their throat with Vinegar and Salt: let him not giue them Hay, Prouender, Chaffe, Oats, or Litter, before they be verie 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 harneſſe, be not torne, or rent, or rotten. He muſt alſo know to ſow with ſmall threed, packthreed, and ſhoothreed, to ſtuffe and make faſt his ſaddles: 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 harneſſe and ſaddles, nor yet of his yron ſtuffe for his beaſts feet: as namely needle threed and ſilke, fleame to let bloud with, knife to launce and cut with, cornet, buttrys, pincers, hammer, paring-yron, and rape, he muſt alſo haue barnacles, paſternes, trauerſes, and colling-ſheares, with whatſoeuer elſe is needfull to be vſed in any time of occaſion or neceſſitie. He muſt be verie carefull to find out the cauſe vvhen he ſeeth any one of his Horſes halt, of what foot it is, and in vvhat place of the foot being handled or tried, he moſt complayneth himſelfe, and to put about his paſternes ſometimes Spech-graſe, and ſometimes dung.

A farmer muſt know the worke and trade of a ſadler and farrier.

He muſt alſo take great heed when his beaſt doe caſt the old hoofe, and haue a new growing, and cauſe ſomething to be giuen him for the helpe of the growth of the new hoofe, and vvhen he hath his throat heated to cauſe him to be couered, if therewith he haue the cough: and if in trauaile he haue taken cold by raine or tedious vveather, to giue him then to eat ſome Fenugreeke or Aniſe-ſeed amongſt his prouender: to change him vvhen he is paſt age: and alſo to take acknowledgement of the loue that one Horſe beareth towards another, and accordingly toſet them one by another in the Stable appointed for them, which he muſt euerie morning may cleane in Sommer, carrying out the dung and filth, and letting none remaine, and at night giue them freſh Litter. He muſt alſo caſt an eye about, and ſee whether his horſes doe grow leane or no, and then to fat them with Fetches boyled in water, and mixed amongſt their Oats, as alſo with millet, pannicke, rice, ſodden and mingled with meale of Beanes, and a little Salt; or where theſe are miſſing, to take

The caſting of hoofes.

To make cleane his horſe ſtable.

good sweet Barley chaffe, or Pease pulse well mixt with some drie Beanes, and to give him thereof good store after euerie watering, or vvhen he newly commeth from his labour; as for sodden Barley, or other boyled corne, they are onely good to loosen the skinne, but the fat which they gather is neuer of any indurance. 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 daunger, and to locke vp and keepe his harnesse well, and made readie ouer night against morning, that so when he is to returne to his labour into the field, he be not to seeke of any thing. If he haue any Mules or young 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 wearinesse, dulnesse, or chafing, he must put him out from among the rest.

The faults of Horses. If he haue any Horse that hath ill propertie or fault, he shall be carefull how to amend it, as if he be fearefull or timerous, or if he will not abide while one getteth vpon his backe, or if he will not goe by or into any place, he shall hang within his eare some prettie little stone: and if this doe him no good, he shall hoodwinke him, or set behind 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 the forelegges: if he lye downe, he must be raised vp againe with rough words and strokes: if he goe backward, you shall tye a cord to his codds, vvhich shall be so long, as that reaching betwixt his forelegges, he which rideth him may hold it in his hand, and when as the Horse shall goe backward, he shall pull it hard with his hand to make him goe forward, for so vvithout all doubt he will goe forthright, and amend his fault: if the Horse be gelded, he must beat his thighs vvith a long staffe taken out of the fire verie hot, and burnt at the end: or he shall giue him feele of his whisking rodd 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 round 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 heard of Mares and Colts carefully, that no inconuenience may befall them: he shall put them to feed, and shall send them to grasse when it shall be due time, and that in large and marish grounds. Notwithstanding marish ground doth soften their hoofe verie much, and maketh them tender sighted, and begetteth water in their feet: and for this cause I could like the high and hillie grounds better, being such as from time to time haue raine or deaws dropping downe vpon them, and not drie at any time, and such as are rather void and free, than incombred with vvood or other bodies of trees or legges: and yet further, hauing a soft and sweet grasse, rather than a high, great, and strong grasse. And notwithstanding that Mares be not so frolicke nor couragious as Horses be, yet they goe beyond them farre in the race, and stand it out a great deale longer; and againe, they are 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 yeare 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 eat, and in Sommer to keepe them in some good coole shadowie place, and well growne with good Grasse, and serueth vvith cleare vvaters: but neuer vpon the rough and ragged mountaines, as vvell for that they doe hardly feed 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 than euerie two yeare, according to the opinion of the curious Horsemen; but yet the better experienced allow the conueying of Mares euerie yeare, for it keepeth the wombe open, and giueth the Foale a large bed to lye in, to keepe and breed of the best kind, and race, and not to bring in a base and degenerate kind: againe, to see that it be done about mid March,

The couering of Mares.

to

to the end, that at the ſame time that the Mares were couered and horſed, they may eaſily feed 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 we our ſelues would wiſh. The Stalions alſo thus attended are the ſtronger, and doe more abound with a well concocted and ſlimie nature, and not with a thinne and waterie, and withall, they couer them with more courage, and beget greater Colts, and ſuch as are more hardie and ſtrong. He ſhall know that the Mares are readie to take Horſe, when they yeeld a whitiſh humor at the place of generation, and that their priuie parts are more ſwolne than they were wont to be, as alſo more hot than ordinarie, and eat not ſo much as they were wont. He ſhall let her take Horſe twice a day, euening and morning, before he let her drinke; and this ſhall be continued but tenne 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 ſhe doe not conceiue.

The ſignes of the Mares being readie to take Horſe.

The Horſe that is leſſe than three yeares old, is not fit to couer Mares, but he may continue good till he be twentie yeare old. The Mare is fit to take Horſe when ſhe is two yeares old, that ſo being three by her foaling time, ſhe may be able to feed it well: but ſhe is nothing worth for this purpoſe after ſhe is once tenne yeares old: for Horſes begotten of an old Mare are looſe and heauie. One good Horſe is ynough for twentie Mares: which, at ſuch time as he is to couer them, muſt be well fed, and when the time approcheth, muſt be fatted with Barly, Fetches, and Ciches, to the end he may the better ſerue for the purpoſe: for the ſtronger and more diſpoſed he ſhall be to couer them, the ſtronger will the Colts be which he begetteth. If he haue no courage, but be feeble and out of heart, you muſt rub the ſecret parts of the Mare with a new and cleane ſpunge, and after rub the muzzle of the ſtalion with the ſame: If the Mare will not admit the Horſe, you muſt bruiſe 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 Horſe to couer Mares.

The Mare whereof we deſire to haue a good race, muſt not be vnder two yeares old, as hath beene ſaid, nor aboue tenne or twelue; and vnderſtand withall, that being of a colder complexion than Horſes, 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 flanke 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 euerie two yeares, to the end ſhe may the better feed her Colt. When ſhe is with Colt, you muſt feed her well, you muſt not trauell or runne her, nor leaue her to the extremitie of the Cold, but keepe her in houſe when it raineth and ſnoweth, and as long as anie 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 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 therewith 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 lier good feeding doth cauſe her Colt to proſper, and ſtrengtheneth it.

A Mare for breed.

The Mare readie to foale.

The Mare that doth 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 ſtraitneſſe of the place: and when it ſhall be ſtronger, it ſhall be accuſtomed to eat Hay, to the end that the dams milke failing, it may haue learned to feed 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

To order a Colt new foaled.

the loue of their colts, if they cannot see them. When it shall be eighteene moneths old, you shall begin to waine it, and put it in the house built for colts, afterward you shall tame it, putting a halter about the necke, and that rather of wooll than 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 vvill 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 subjection: as yet you must speake it faire, and touch it with your hand, sometimes rubbing the backe, head, or bellie, and sometimes the rumpe, legges, and feet, sometimes raising it vp, making it cleane, and rubbing it verie mildly and 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 vvithall vnderstand their vvords and voyces, and smelling him, to know him before he get vpon him: sometimes you shall set a child vpon the backe, to the end he may learne to endure to beare one; giue it good hay and good grasse: lead it to water with one alreadie 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 rubbe the legges and the whole bodie with the same litter, and after lead it to drinke. When it is three yeares old, you must breake and acquaint and fit it for such worke as you shall thinke meet. As for example, if you would appoint it and make it serue you sometimes to take a journey vpon, I could wish you to giue it a burning with fire vpon the legges: and this you shall commit to the doing of some skilfull Farrier, especially in the Spring, Autumne, and decrease of the Moone, and at such time as these young horse are full two yeares old: and this must be done as wel in the legs before as behind: such course of burning doth harden and strengthen their loose flesh, being soft and 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 rottennesse if there be any, and healeth old aches, curing and restoring the declined parts of the bodie, lessening that which is growne too great, and not suffering it to grow any further. Add hereunto, that the scabbe, farcie, and other malanders accustomed to seise vpon their leggs, cannot haue the power to breed vpon them. After you haue thus burnt them with a knobd hot yron, carrie them to pasture, and that at such an houre, as when the deaw is vpon the grasse: for so it will doe them a great deale more good than any thing that a man can giue vnto them in the stable, for so also you shall cause that the scarres of the burnings shall appeare lesse, and that if they shew at all, that yet it shall be with good setting out of the legge.

To burne the colt with a hot yron.

As for that retained opinion amongst our Frenchmen, that the slitting of a horses nosthrils when they are full growne, will make them fit for the course or race, as being an occasion of more libertie to his wind, or that it will helpe a broken winded horse, it is a meere fallacie and deception, and hath no such vertue at all, but rather worketh the contrarie, and by dismembring the organ or instrument whereby he draweth vp the aire, doth breed in him a greater difficultie of breathing, the painefulnesse whereof may be perceiued when he standeth still without any trouble or molestation, therefore I would haue all horse-groomes to forbeare the practise, and to hold it rather a disgrace than any benefit, for it is to be vnderstood, that nature hath made euerie thing perfect without want or superfluitie, and to alter any thing in her maine workmanship, is rather to ouerthrow than helpe the building.

If you will geld them and make them Geldings, that so they may liue 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 yeare old, because that then their secret parts doe openly shew themselues, and for the better performance thereof, it vvere better to vvrith about and mortifie their codds altogether with pincers, than to geld them all at once, notwithstanding they be of full and sufficient age:

For

For in gelding of them, manie doe die of extreame paine, becauſe you take all away from them; but if they die not, yet they remaine weakened and enfeebled both in heart 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 cords and ſinewes of the generatiue members. Yet other of the beſt French horſemen doe affirme, That to geld a Colt cleane, by way of inciſion and calterizing, is the beſt courſe that can be taken, and maketh the fineſt ſhaped and beſt mettalled Gelding: for (ſay they) when anie of the cords or ſtrings of generation are left behind, then the Gelding proues rammiſh, Marewood, ſoule headed, thicke neckt, and groſſely creſted. And of this opinion are all the Engliſh Horſemen: to whom we muſt yeeld, becauſe they are knowne to be Maſters of the onely Geldings of the world; and thoſe of whom we moſt boaſt, we haue onely from them, either by gift or purchaſe. Therefore I leaue to the skilfull Groome the conſideration of this action, to chuſe that to which he ſtands moſt affected.

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 gentleneſſe it may be preuented and foreleene, that the young Colt doe not learne ill manners, 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 behoueth 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 and carriage it is wrought, that they ſuffer themſelues to be gouerned: that they ſuffer meat to be giuen them, and anie man to lead 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 verie cleane, nor yet to haue it furniſhed with all manner of neceſſaries, and euerie thing in his place. Yet this euer by the way is to be vnderſtood, that as ſoone as you haue cleanſed your Stable cleane, dreſt your Horſe, watered him, and giuen him ſuch prouender as you thinke meet for him, that then, before you leaue him to his reſt, you forget not to put downe his Litter about him, that at his pleaſure he may lye downe and take his eaſe, which is to anie Horſe as wholeſome a reliefe as anie whatſoeuer; giuing much comfort to his limbes and ſinewes, making ſwift digeſtion, and adding ſuch ſtrength and courage to his heart and vitall ſpirits, that he is thereby a great deale the better enabled to endure his labour, and leſſe apt to take ſurfets, and other miſchiefes, much incident to Horſes: where on the contrarie, when Horſes are compelled to ſtand all day on the bare planchers, out of a fooliſh receiued opinion, to make them hard and of more endurance, the Horſe taking no delight to lye downe, humors deſcends into his legges, ſtrange ſwellings doe breed, Spauens, Curbs, Ringbones, and gourding of Sinewes, encreaſe aboundantly: and manie a good beaſt, for lucre to ſaue one or two bottles of baggage Straw, is ſpoyled and made vtterly vnfit for anie ſeruice. And as I would haue you carefull thus to keepe Litter vnder your Horſe; ſo alſo I would haue you verie obſeruant, to ſee that your planchers lye euen and leuell, and not higher before than behind, as is the common cuſtome of moſt men, eſpecially Horſe-courſers, and ſuch as keepe Horſes more for the ſale than vſe: for albeit the vneuen laying of the planchers giueth to the Horſe ſome more beautie than otherwiſe he would haue, erecting vp his fore-parts higher than his hinder, and ſo making him ſhew with a goodly and well-raiſed fore-head, yet it brings lameneſſe, and is therefore euermore to be eſchewed. When as the Horſes are in currying, it is meet that they ſhould be tyed 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 bodie, to rub them with a cloth,

cloth, to bath with ſpunges well, in verie coole water, their head, eyes, lippes, eares, iawes, noſthrils, mane, and taile, and afterward to combe them verie diligently: and when this is done, to rub all their bodies ouer, but eſpecially their legges and paſternes, with wiſpes of ſtraw, well bound and truſſed together: for otherwiſe they will grow full of the Farcie through the ſlouthfulneſſe of the ſeruants and the maſter himſelfe. Aboue all things, they muſt be looked vnto whether they lacke anie thing about their feet, or no: ſeeing that oftentimes the want but of one naile is the cauſe that a Horſe caſteth his ſhooe in the mid way, to the great preiudice of the poore beaſt, which ſometimes thereby is in danger of loſing his whole foot, eſpecially when he trauelleth in anie rough and ſtonie ground: for a Horſe that hath loſt his ſhooe, and goeth vnſhod, hurteth himſelfe in a minute of an houre, and ſo ſpoileth his hoofe, as that it is oftentimes ſeene to be quite loſt, or at leaſt to become vnfit for ſeruice. And when your Horſe is thus curried, ſpunged, rubbed, and well ſmoothed, and euerie offence about him pickt, trimmed, and taken away, you ſhall then cloth him vp with ſuch clothes as are neceſſarie for his health, and anſwerable to the time and ſeaſon of the yeare, as either with double Clothes, ſingle Clothes, lined Clothes, Woollen, Linnen, or both together; vſing moſt in the Winter, fewer in the Spring, and feweſt of all in the Summer. Yet for a better ſatisfaction, and that you may rightly know what number or quantitie of clothes you ſhall vſe, you ſhall view well the ſtate of your Horſes bodie, and looke carefully how his haire lyeth, eſpecially vpon his necke, and other outward parts which are vnclothed, and if you perceiue that in anie of thoſe places the haire ſtandeth vpright, ſtareth, or looks rugged, then you ſhall be aſſured that the Horſe wanteth clothes, and is inwardly cold at the heart: therefore you ſhall then encreaſe his clothes, and not ceaſe ſo to doe, till you haue brought his haire to lie ſtraight and ſmooth; which once perceiued, then you may be well aſſured that he is ſufficiently clad: and you ſhall by no meanes exceed anie further. Now when you begin thus to encreaſe your Clothes, if you ſhall find when you come to your Horſe early in the morning, that he ſweateth much, eſpecially in his flanks, at his eare-roots, and in ſuch like vſuall places, yet notwithſtanding his haire ſtill ſtareth; you ſhall then know, that ſuch ſweating is but a faint naughtie ſweat, ingendred by corruption of food, or elſe want of moderate and wholeſome exercise: and therefore by no meanes ſhall you abate anie of his clothes, but rather encreaſe them, till that naughtie faint ſweat leaue him. But if you perceiue that his haire lieth ſmooth and cleane, and yet notwithſtanding he ſweateth, then you ſhall know that his clothes are ſomewhat too manie, and you ſhall abate them till ſuch ſweating leaue him. This is a moſt infallible rule, and ſuch a ſecret as is worthie to be imprinted in the mind of euerie good Horſeman and Groome that intends to keepe their Horſes ſound and well prepared for all manner of labour. The Horſes dreſſed and ordered as they ſhould be, and hauing eaten a little Hay, muſt be led to water, or rather ridden forth a myle or more to their water; which would euer be ſome cleere Spring or running Riuer: where, after your Horſe hath taken one good draught or two, you ſhall bring him forth into ſome plaine ground, and there gallop him gently vp and downe (to warme the water in his bellie) a little ſpace, and then bring him to the water againe, and let him take another draught, then gallop him againe, and thus doe till he will drinke no more, and then with all gentleneſſe walke him faire and ſoftly home to the Stable, and there cloth him vp. This manner of watering your Horſe is of all other the moſt wholeſome, giuing vnto him by this moderate exercise great ſtrength both of wind and bodie, and alſo diſſoluing all thoſe groſſe, cold, and tough humors, which are ingendred by the corruption of water when it is taken without exercise, and lyeth cold and troubleſome in his bodie, making the Horſe to quake and tremble; as anie man may perceiue, when at anie time he pleaſeth to approue the ſame, and hauing giuen his Horſe water, will but lay his hand vpon his bodie or buttocke: But this I haue alreadie ſpoken is at full ſufficient touching a Horſes watering. From whence when they are returned, they ſhall haue Oates giuen them well ſifted and fanned, and they ſhall be marked whether they eat well

Exercise after water.

well or not, that, if need be, they may be looked in the mouth, to ſee whether there be anie thing to keepe them from eating, or no, and accordingly to take them in cure, or not: for the common prouerbe is, That Horſes goe vpon their feet, but it is their meat that doth vphold them, and cauſe them to endure trauell. It is meet alſo to giue them ſometimes ſome rare and daintie 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 beat them, to torment them, or caſt them into feare with high ſpeeches and threatening words, or elſe by anie other meanes, ſo long as they be in the Stable: but rather to handle them with all meekneſſe, as well in word as in touching or handling, in what manner ſoeuer it be. *A Prouerbe.*

To fit the Colt for the Saddle, the good Rider muſt firſt put vpon his head a halter, with a Rouler of Wood, not attempting to doe anie other thing at that time, and ſo to leaue him for two or three houres vpon the reines, being of cords, and after ſuch time to take all away for that day: the next day, ſomewhat late, to put it on againe, and ſo to leaue it for ſome certaine time: afterward taking him by his reines, he muſt lead him a little out of his place, drawing him along ſome twentie or thirtie paces from thence, ſometime walking him, and otherſome time ſtaying him, ſtill vpon the ſuddaine, according as he ſhall ſee it good, that is, according to the ſtubborneneſſe and frowardneſſe, or the eaſineſſe and gentleneſſe of the Colt. So ſoone as he is come into the Stable, he ſhall haue this halter taken from off him, putting him in his accuſtomed Head-ſtall, and giue him rather ſome Hay to eat, than to lead him to water, and after that to giue him his ordinarie of Oats. The third day he ſhall not onely put on his foreſaid halter at the accuſtomed houre, but alſo a ſaddle, without ſtirrups, pettrell, or crupper, girding him gently, and in all kind manner faſtening and buckling the ſame verie lightly: he ſhall yet doe 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 goe: 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 wand, he ſhall firſt make him to ſtand ſtill: then afterward he ſhall make his Colt goe a little pace, and from that little, ſomewhat faſter and faſter, now and then giuing him a gentle touch or remembrance with his ſaid ſmall rod, which hee ſhall then ſhew vnto him: after making him ſtand ſtill againe, he ſhall hold him vp with courteous and friendly words, and rubbing him with his hand, ſhall carrie him backe againe vnto his Stable, and there preſently take off his ſaid furniture, and put him in his ordinarie Tiall or Head-ſtall. 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 he begin not to ſmite and ſnort, and to take on anie whit at all, he ſhall lead him by the reines out of the Stable, and lead him a pretie way off, making much of him with his hand, and touching his head, 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 himſelfe ſhall get vpon him verie lightly, and holding the reines 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 reines a little, ſhall cauſe him to goe forward ſoftly: if he play anie leaping tricks, he ſhall ſtay him with the bridle, ſtill ſpeaking louingly vnto him: and ſeeing that he groweth quiet, he ſhall make him goe 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 pretie 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 houre after he ſhall take off his ſaddle and bridle at once, rubbing him with freſh ſtraw, but eſpecially the places wet with ſweat: and then couering him with his Cloth, and after hauing rubbed his legges and feet, he ſhall let him drinke, and giue him to eat, and ſhake vp his litter about him. This is the accuſtomable vſe of ſome of our French Riders for the firſt breaking of Colts: but it is by others, more expert and induſtri- *To breake, or firſt backe the Colt.*

ous

The best handling of Colts.

ous in the Art, held to be a little too tedious; and they find a neerer way to the end of their purpose, as thus: Hauing made the Colt gentle and louing in the Stable and abroad, obedient and willing to be handled, led forth, and ordered as a man pleaseth, without affright, dislike, or rebellion; they then at first set a good sufficient Saddle on his backe, with styrrop and styrrop-leathers, which after they rub vp and downe his sides, a strong crupper, and a good breast-plate, which being well gyrt on, they in the morning cause him to be led forth in the Groomes hand, that he may be acquainted and familiar with those ornaments that are about him: then, in the afternoone of the same day, they put into his mouth, with strong head-stall and reines, either a good watering trench, or a watering snaffle, and then ouer it a strong soft chasse halter, and so lead him forth with all gentlenesse into some new-plowed field, or else some other ground of the like nature, and there make the Colt trot a ring of both hands foure or fiue times about the Rider: then the Rider goes to the Colt and cherishes him, and the Groome holding him fast by the chasse halter, neere to the Colts head, with one hand, and staying the styrrop with the other, the Rider offers to put his foot in the styrrop, and with manie leisurable heaues and lifts to take the Saddle, at anie of which if the Colt startle, or seeme to be displeased, the Rider shall descend againe, and make the Colt, as before, to trot a ring foure or fiue times about him, and then offer to mount his backe againe, not ceasing thus to doe, till the Colt with all gentlenesse doe receiue him: then shall the Rider and the Groome both cherish him verie much, and then the Groome shal offer to lead the Colt forward; at which if he find fault either in action or countenance, or but in the gathering together of his rumpe, legges, and bodie, as though he would leape and plunge, immediately the Groome shall stay him, the Rider shall alight, and, as before, shall compell him to trot his rings about him, and then take his back againe, not ceasing thus to doe, till the Colt with all willingnesse presse forward and be content to be led with the Rider on his backe whither and which way soeuer the Groome pleaseth: in all which motion, the Rider shall with his voice, and the thrusting forward of his feet hard vpon the styrrop-leathers, encourage and as it were enforce the Colt to goe forward, now and then shaking his rod ouer the Colts head, to make him heare the noise thereof, and euer and anon as the Colt is thus led vp and downe, the Rider shall with his bridle hand stop him, make him stand still, and cherish him, then cause him to be led forward againe, and as the Colt growes more and more willing to goe forward, so the Groome shall withdraw his hand more and more from the Colts head, and loosen the chasse halter, insomuch, that the Colt may haue no feeling of the Groomes leading him, but may goe forward by the helpe and encouragement of the Rider onely: then shall the Groome giue the reine of the chasse halter into the Riders hands, and he shall make the Colt goe forward, euer and anon cherishing him when he doth according to his desire, and giuing him threatening words when he doth the contrarie. Thus shall he labour and apply the Colt, till he will goe forward willingly, gently, and with courage, according to his desire, the Rider euer obseruing, as neere as he can, to make the Colt goe straight forth-right, and by no meanes to turne or twynd him about anie way, contrarie to his owne will, but for this first day to giue him leaue to goe which way he will, not expecting from him anie other obedience, than to goe forward in either pace or trot when the Rider pleaseth, and also to stand still and firme when at anie time he shall be restrained. This worke being brought to passe the first day, the Rider shall in the field alight from the Colts backe, and hauing cherisht him much, and giuen him a little Grasse or Bread to eat, he shall deliuer him to the Groome, who with all gentlenesse shall lead him home, and there dresse him, cloth him, and feed him well. The next day the Colt being sadled and bridled as aforesaid, the Groome shall lead him forth to the former place, and there the Rider shall take his backe as he did the day before, and in all points shal make the Colt perfectly repeat ouer his first daies lesson: which when he hath done very willingly and obediently, without compulsion or resistance, then the Groome shall mount the backe of some old staunch Horse or Gelding, and leading

leading the way before the Colt, shall trot faire and softly round about the field, stopping his Gelding as oft as the Rider stoppeth the Colt, then goe forward againe, sometimes leading the way before the Colt, and sometimes riding cheeke by ioll by the Colt, till he be brought to such perfectnesse, that he will take his way forward how or which way the Rider pleaseth: then they shall ride gently home, and there light neere vnto the Stable dore, and so set vp the Colt, cloth him, dresse, and feed him. Then the third day the Rider shall take the Colts back at the Stable dore, and the Groome his Geldings back, and so ride forth into some plaine High way, the smoother the better, the Gelding leading the way to the Colt, and let them so ride straight forth-right at least two myles or more, stopping sundrie times, and cherishing the Colt, and then gently returne home, the Colt sometimes leading the way, and sometimes the Gelding, and alighting at the Stable dore as before, set vp the Colt, dresse him, and feed him: And thus if you doe twice or thrice in this third day, it shall be so much the better. The fourth day the Rider shall take out the Colt, and the Groome the Gelding, but the Colt shall then lead the way, and the Gelding shall follow, onely now and then, to giue the Colt encouragement, the Gelding shall come and ride vp to the face of the Colt, and then eftsoones fall back behind him againe. This day you shall, in a large spacious compasse, trot the Colt round, first on the one hand, then on the other, making him bend and come about, according to the bowing of your bodie, or the turning in of your hand, and in euerie motion make your selfe master of whatsoeuer he doth, giuing him a true vnderstanding, that what he doth, is your will, and not his pleasure: and withall, by no meanes forgetting to cherish him when he doth well; not after, but euen in the instant and presentnesse of time, when he performeth your pleasure, that he may thereby know why he is rewarded with kindnesse: and in like manner, when he doth anie thing contrarie to your will, you shall chastise him with the threatening of your voice, and sometimes with the noise and shake of your rod, or when extremitie vrgeth, with a good lash or two with your rod vnder his bellie, in the very selfe-same instant that he offendeth. And when the Colt hath performed all things answerable to your liking, you shall returne home, not the same way that you came forth, but, if conueniently you can, some other way, thereby to breed in the Colt an ignorance of his owne ease: which is the onely meanes to preserue and keepe him from restyuenesse, and other wicked qualities. And being come to the Stable dore, you shall there alight, and cherish him, and then set him vp, dresse him, and feed him. And this you shall doe at least thrice in this fourth day. The fifth day hauing sadled, bridled, and girded him as he had beene accustomed, he shall lead him to the place of getting vp, and there shall get vpon him, lead him through all manner of Waies, sometimes trotting, sometimes softly, vntill he begin to wax hot: And this order shall be obserued euerie day, yet still encreasing his exercise, making him goe and trot so long as vntill he be wearie; this being the best way to make him lift his legges, and to carrie himselfe handsomely 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, and then he shall set him vp in his place. Yet of the later and more experiencest Horsmen it is thought good not to walke him at all, but presently to set him vp, cloth him well, and giue him litter ynough, with sound and drie rubbing: for it is an infallible experiment, that the walking of Horses in the hand is the readiest way to giue Colds, and breed Feuers, because then the humors coole too suddenly; and the vitall parts leauing (as it were) their motions in an instant, the heart and other inward parts receiue the cold aire so vnprouided and vnarmed, that wanting the assistance of their other seruants, which is action and spirit, they are ouercome, and yeeld to the arrest of dulnesse and numbnesse: Therefore it is held best not to walke at all, but rather to house the Horse, and with rubbing, fretting, clawing, & picking, to keepe the ouer-heated parts warme, till they may coole by a moderate temper: and this questionlesse is the safest course for a Horse that is extreamly heated, as the English hunting and running Horses are. But our French Horses, which are heated by a more deliberate & slower way,

Walking Horses not good.

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as it were onely but warming the bloud, not melting the greaſe; I hold it the beſt and ſafeſt way, when you come from riding, and haue made your Horſe ſweat ſoundly, then preſently to carrie him into the Stable, and taking the Saddle off, whileſt one Groome is rubbing and chafing his legges (which is action ynough to keepe him from cold; for it is a perfect rule, That whileſt the Groome rubs well, the Horſe neuer takes cold) another Groome ſhall take a piece of a Sword blade, two foot and more in length, and with the ſame he ſhall with the edge ſtrype and wype downe the Horſe, euen from the tip of his eares to the pitch of his ſhoulders and cambrell, leaving, ſo neere as he can, not anie moiſture amongſt his haires: then clapping on his Clothes, he ſhall vpon them ſet the Saddle, and then girding it on gently, take the Horſe forth againe, and in his hand walke him vp and downe in the ayre till he be throughly cooled and drie: then he ſhall take him into the Stable, ſet him vp, after a little pauſe feed him, and at a conuenient watering houre currie and dreſſe him, as hath beene before ſpoken. But to returne to our former diſcourſe: Hee ſhall hold on this courſe with the Horſe, vntill hee ſee him throughly woon, and then hee ſhall cauſe him to be ſhooed on his hindermoſt feet onely, to the end he may carrie him through rough and ſtonie waies, without hurting of his hoofe: and he ſhall not vſe anie thing elſe to ride him with, ſaue onely his whippet and trench, for to make him goe, trot, gallop, runne, flie, turne, leape, to riſe behind and before: alſo he ſhall traine him to ſcoure ouer ſmall Hills, the tops of Hills, and great high Hills, and againe, to come downe the ſame verie ſoftly: and ſometimes riding him to the places where Mills, Forges, and ſuch other Hammer-workes are, as alſo where there is beating of Linnens, to the end that afterward he may not be afraid at anie ſuch noiſe. Hee ſhall bring him alſo to the place where are Carts, Waines, Tumbrels, Carres, Coaches, Charets, Wagons, flockes of Sheepe, heards of Swine, Kine, and Goats; making him likewiſe to ſee Lambs and Calues, or other Beaſts and Cattell, hauing their throats cut. He ſhall marke all theſe things day by day, till he perceiue him readie, and ſee him certainely with his owne eyes, that he doth not vſe to ſnuffe and take on at the ſmels of the foreſaid things, and then he ſhall furniſh him with all manner of things, and getting vpon him, ſhall guide him into manie places, making him to goe by ſteps, to trot, to leape Ditches, to ſwimme Riuers, and other Waters. And notwithſtanding this, he ſhall not faile to giue him ſuch a kind of pace and going as ſhall ſeeme moſt agreeable vnto him: for a Gennet would be trained vnto one manner of pace, and a Courſer to another; and ſo a Horſe for the Warre, a Curtall, or anie other ſuch Horſe, moſt neere vnto his naturall diſpoſition. Of which paces to giue you a little taſt and experience, you ſhall vnderſtand, that to bring a Horſe to a comely, cleane, and a loftie trot, you ſhall vſe to ride him vpon new-plowed Lands, or in Wayes that are deepe and heauie, for that will make him twitch vp his legges, and ſtrike them cleane and high: but if you find it toyleſome to your Colt, and that by reaſon of his young yeares you are afraid to put him to ſo extreame labour, becauſe manie ſorances grow thereby, then you ſhall ride him forth into ſome plaine piece of ground that is much ouer-growne with long Thiſtles, ſhort Gorſſe, Whynnes, or ſuch like ſharpe Weeds, among the which you ſhall ride your Horſe a good ſpace twice or thrice a day, and the Thiſtles or Gorſſe pricking his ſhinnes, will make him take vp his legges roundly and loftily, and in verie ſhort ſpace bring him to a cleane, eaſie, and braue trot, although the Horſe had neuer trotted before in all his life: But if you find that the ſlouenlineſſe and vncomelineſſe of his trot commeth out of a naturall careleſneſſe, or in reſpect of his way, and that by reaſon of a dull and heauie diſpoſition wherewith he is infected, he is not by anie of the former wayes to be reclaimed, then you ſhall watch when the nights are moſt darke and clouded, euen ſo thicke, that you can hardly ſee your hand (for euer the darker the better:) then you ſhall take out your Horſe, and ride him into ſome new-plowed field, where the lands lye moſt high and vneuen, or into the like vncertaine and much worne wayes, and there trot him forth roundly and ſwiftly, ruſhing him now ouer-thwart, then end-wiſe, ſometimes one waies,

To make a Horſe trot well.

waies, ſometimes another, not ſuffering him to take leiſure, or regard to his way, how dangerous or falſe of foot-hold ſoeuer it be: And although at firſt (as it is moſt likely) he will ſtumble, or be readie to fall, yet doe not you make anie care thereof, but bearing a good ſtiffe hand vpon him, ſtrike your ſpurres hard into his ſides, and the more he ſtumbles, the more encreaſe you the ſwiftneſſe of his pace, onely by no meanes whatſoeuer ſuffer him to gallop. And thus exerciſing him ſundrie nights together, you ſhall not onely bring him to a braue and moſt gallant trot, but alſo breed in him a great height of ſpirit and mettall, as alſo it will make him verie hardie and valiant. And if hee were ſubiect to that intollerable vice of ſtumbling, yet this manner of riding and correction would amend and cure the ſame: for you ſhall vnderſtand, that a Horſe is, as a man, fearefull and vigilant of his way, and when the ſight thereof is taken from him, all his pores and vitall ſpirits are awakened and ſtirred vp to preuent the dangers that may happen vnto him: ſo that when all courſes elſe ſhall faile, yet this is moſt aſſured. *To helpe ſtumbling.*

But if you would haue your Horſe, by reaſon of your manie occaſions to iourney, or becauſe your bodie is vnapt and vnable to endure the hard pace of trotting, to amble, which is of all paces whatſoeuer the eaſieſt, you ſhall vnderſtand, that to bring him thereunto, there are but onely two wayes, that is to ſay, either the Tramell, or the Hand; the betterhood of which, I leaue to your conſideration, when your experience hath made triall of them both, and done to neither iniurie, but vſed them carefully, artificially, and according to the truth of the rules preſcribed. *To make a Horſe amble.*

To giue you then a little light what the Tramell is, you ſhall vnderſtand, that it is called a Tramell when a Horſes neere fore-legge and his neere hinder-legge, two handfull aboue the paſterne ioynts, are ſo faſtened together with leathers and cords, that he cannot put forward his fore-legge, but he muſt perforce hale his hinder-legge after it, and ſo likewiſe his farre fore-legge to his farre hinder-legge, and then another flat and ſoft leather going ouer the fillets of the Horſes backe, and faſtened to both the lynes on both ſides the Horſe; which piece of leather ſhall hold vp the lynes, that they fall not nor tangle vnder the Horſes feet as he goeth. This is called the tramelling of a Horſe: and with theſe you ſhall firſt in your hand make him goe ſoftly or ſwiftly at your pleaſure; and when you find that he will take his way perfectly in them, without danger of falling, then you ſhall take his backe, and ride him thus in the tramels the ſpace of a weeke in ſome faire, plaine, and ſmooth Way or Roade: then the next weeke following you ſhall ride him in vneuen wayes, ouer layes, vp hill and downe hill, and in ſuch like vncertaine places: then the next weeke you ſhall take off the tramels of one ſide, and faſten the backe band to the ſaddle, and ſo ride him for a day or two: then put on that tramell againe, and take off the other which was on before, and ſo ride him another day or two: then take both cleane away, and ſo ride him and keepe him to his pace; which he will hardly or neuer forſake, if you haue anie care at all. Now for the ſpeciall reſpects which are to be obſerued in the tramelling of Horſes, you ſhall firſt obſerue, that the leathers which goe about the Horſes legges be ſoft, ſmooth, and well lyned, neither ſo ſtrait, that they may offend the maine ſinewes of the legges, nor ſo ſlacke, that they may fall off: the buckles with which you make them longer or ſhorter, muſt be verie ſtrong alſo, that they may abide the twitches and ſtraines of the Horſe, when at anie time he ſtriketh a falſe ſtroake: the lynes which paſſe betweene theſe leathers, muſt be a good round rope made of ſtrong Hempe well twound, with a loope at either end whereto to fixe the leathers; and theſe lynes muſt be both of a iuſt and euen length, not one exceeding another a ſtrawes breadth, they muſt be ſo fixed to the Horſes legges, that they muſt by no meanes either draw them inward, or giue them libertie to ſtradle outward, but ſo, as they may keepe the Horſe in his true, iuſt, and naturall proportion. Now if your Horſe ſtrike too ſhort, then you ſhall ſtraiten your lynes halfe an inch at leaſt, for that will make him ouerſtrike halfe a foot, and a whole inch a whole foot: and ſo of the contrary part if he ouerſtrike, you ſhall let forth your tramell in the ſame maner that you tooke it in.

There be some that will put on these tramels, and make the Horse runne at grasse with them a moneth or two, and when they take them vp, they will amble as readily and perfectly, as if they had beene naturall bred amblers: and sure there is great likelyhood thereof; for a pace that is so giuen without compulsion, is euer the surest and most vnchangeable. Now for the making of a Horse to amble with your hand, it may be done either in some faire descending ground, or vpon the fallow lands, and either out of his trot or gallop, as thus: Hauing taken your Horses backe, and put him either into a swift trot or a swift gallop, you shall on the suddaine chocke him in the weeks of the mouth, and iert his head vp aloft, making him to shuffle his feet together, and to strike them confusedly; and thus you shall doe so oft, till you make him strike an amble: then you shall cherish him, and bring him to the smooth ground, and there with the helpe of your hand, held firmely aloft, make him continue his amble: which when at anie time he offereth to forsake, you shall forthwith toyle him as you did before, and then bring him to the plaine ground chiefely vp the hill, and there hold him to his pace: which after he hath gotten in anie reasonable sort, he will naturally, and for his owne ease, seeke to encrease it, and then you shall apply him at least three or foure times a day, and in one moneth there is no doubt but you shall bring him to that perfection your owne heart can wish. There is also a third pace, which is neither trot nor amble, but is called a racking pace, that is to say, betweene an amble and a trot: and though it and the amble haue both one manner of motion, that is to say, taking vp of both legges of one side together, yet this racking moueth much swifter and shorter, striking thicke, yet seldome beyond the step of the forefoot. This pace is of some reputed the easiest of all paces: but I leaue that to euerie seuerall mans feeling. Certaine it is, that manie men take much delight therein, because there is no racking Horse but can trot, and so in deepe and filthie wayes are able to make much better riddance of the way: whereas diuers ambling Horses can by no meanes trot, and so lesse able to driue through the myre: or if they doe, it is with much toyle, and foule dashing and myring of their Masters. To bring a Horse then to this racking pace, the onely best way is held to be sore and long trauell, as much Hunting, Running, and such like, and then when you feele your Horse begin to be a little wearie, to hold vp your bridle hand, and chocking the Horse in the weeks of the mouth, to make him breake his pace, and to strike a rack, which his wearinesse, and the ease that the pace bringeth him, will quickly make him doe, then to cherish and nourish him in the same, and by no meanes to force him past his strength, or to make him goe faster than of his owne inclination he is willing to doe, for too much hast in this worke is the onely spoyle thereof: And thus in lesse than a moneths hunting or riding of your Horse, you shall bring him to a verie swift and most readie racke; in which the Horse will take so much delight, that you shall not at anie time need to feare his forsaking of the same. Lastly, for the bringing of your Horse to a cleane and good gallop, you shall vnderstand, that there be two sorts of gallopings: the first, stately and aloft, the Horse winding vp his legges high, and gathering them round and close together in loftie manner: and this is fit for great Horses which are trayned vp for seruice in the Warres, or for the pleasure of Princes and other great Personages, which take delight in stirring Horses, which can leape, bound, yarke behind, coruet, and other sales of like nature. The other is a swift, smooth, easie, and long gallop, wherein the Horse stretcheth out his bodie to the vttermost length, and carryng his feet neere vnto the ground, swoopeth away swiftly, nimbly, and easily: and this kind of gallop is meet for hunting Horses, running Horses, or Horses preferred onely for labour and trauell. Now to bring a Horse to gallop aloft, which is the first kind of galloping spoken of, you shall daily vse to gallop him at his first riding on new-plowed lands, which are deepe, yet lye flat: and withall, you shall euer obserue to keepe a strait hand vpon his head, preseruing the comelinesse of his reyne, and by no meanes suffering him to gallop fast,

To make a Horse racke.

To make a Horse gallop.

but

but the ſlower the better; euer and anon with your hand, rod, and ſpurre raiſing vp his bodie, and making him gather his feet vp roundly together: for it is the pride of his reine, and the ſlowneſſe of the gallop, which brings him to the gallantrie and loftineſſe of the motion. Now, for the other kind of galloping you ſhall vſe a cleane contrarie courſe, that is to ſay, you ſhall traine your Horſe vpon the plaineſt and ſmootheſt ground you can find, you ſhall giue him libertie of reine, that hee may ſtretch forth his bodie and legges, and lay himſelfe cloſe to the ground like a Hare or a Greyhound: and this exerciſe you ſhall giue your Horſe morning and euening after his water, for then it is moſt wholeſome, and he the apteſt to learne and doe as you would haue him. Alſo it ſhall be good for you now and then to put him to the height of his ſpeed: for the more you ſtraine him, the more he couchetb his bodie, and the leſſe diſtance euer hee taketh his feet from the ground: to follow the Hounds all the day twice or thrice a weeke: or to giue him a courſe once a weeke of foure or fiue myles end-wayes, are both verie good waies of training a Horſe to this ſwift gallop: becauſe that length of exerciſe taketh the fire edge from a Horſe, and maketh him more temperate and ſober in his doings; whereas the heat and exceſſe of his courage maketh him praunce and doe things raſhly and loftily. Manie other obſeruations there be, but theſe few before rehearſed are fully ſufficient to bring a Horſe to anie pace the Rider pleaſeth.

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 drie, as that there is nothing of it but skinne and bones: ſmall eares, ſharpe and ſtraight: but great eyes, ſtanding out, blacke and cleane: verie wide noſthrils, puffed 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 backe, broad and ſomewhat ſhrinking downe like a valley: his mane curled, thicke, and long, and hanging downe vpon the right ſide: a broad breaſt, open, boſled out, and verie fleſhie: his ſhoulders great and ſtraight, his ribbes round, his chine double, his bellie round truſled, his cods alike great and ſmall, his reines large, and ſomewhat giuing downe: his taile long, and tufted with haire, thicke and curled: his legges 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, hollowed, round, good, and open, and riſing vp as it ſhould toward the paſternes, and the crowne or top of it verie ſmall aboue: which is cheerefull, quick, gentle, hauing no ill qualitie nor diſeaſes: for they which are of ſuch a nature, are verie eaſie and tractable, and patiently endure anie labour: alſo hee muſt not be mad or franticke, fearefull, running backward: hauing the Sciatica, a ſlacke eater, not ſcowring much, not vſed to lye downe in Waters or Riuers: And yet though hee haue loſt an eye, or haue beene hurt in anie part of his bodie in anie 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 Warres, becauſe he will beget noble and couragious Colts, and ſuch as ſhall be fierce in all aduentures and difficult and long enterpriſes: beſides, that he be of colour bay, browne, 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 goodneſſe and faireneſſe of a Horſe: hee muſt haue the eyes and ioints of an Oxe, the ſtrength of a Mule, the foot of the ſame, the hoofes and thighes of an Aſſe, the throat and necke of a Wolfe, the eare and tayle of a Foxe, the breaſt and haire of a Woman, the boldneſſe of a Lyon, the ſharpe and quicke ſight of a Serpent, the pace of a Cat, lightneſſe and nimbleneſſe of a Hare; a high Pace, a deliberate Trot, a pleaſant Gallop, a ſwift Running, and bounding Leape and preſent, and be quicke in hand.

The best marke in a Horse.

Againe, you shall take it for the best and principallest note of a good Horse, if he haue an Ostridge feather on each side his crest: for they are of excellent endurance, and will seldome or neuer tyre: Againe, to haue the neere foot white behind, the farre foot white before, to haue both feet white behind, or both feet white on either side, are all approued markes of a verie good Horse, prouided that all such whites be vnder the pasterne: for to haue them higher, is a signe of an arrand Iade. Also to haue a white starre in the forehead, a white rache downe the face, or a white snip on the nose, are markes of a good Horse; prouided, that the starre be not artificiall, the rache too broad, enclining to baldnesse, nor the snip raw: all which are euill signes. Also a little foot is a signe of swiftnesse, a thinne haire a signe of mettall, a loose throppell a signe of much wind, and a short, well-knit, and vpright pasterne a signe of strength and great endurance. There be manie other signes of a good Horse, but none more materiall than these, nor none more common or easie to be perceiued.

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 feet, hoofes, 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. He beginneth to haue teeth the first three moneths, and by the end of the first yeare he hath six aboue and as manie below: At thirtie moneths hee changeth two aboue and two below: and at fortie two moneths hee hath foure new ones on both sides, which touch those which he had last comming. When he is foure yeares old, then the teeth called Dogges-teeth doe fall out, and others come in their place. Before the sixt yeare, the great iaw-bone-teeth that are on the vpper side doe fall out: and in the sixt yeare, those that were first fallen doe grow againe. In the seuenth yeare all the whole number is fulfilled, and they are all hollow: and after this time, no man can certainely know how old a Horse is, but that about the twelfth yeare there is to be seene in them an extraordinarie 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 meat; and these shew themselues the more, as they draw neerer and neerer the fore-part of the iaw. The tenth yeare the temples begin to fall and grow hollow, and sometimes the eye-browes doe waxe gray haired; the Horse doth make shew of sadnesse and a mine of melancholie in his forehead; he stoupeth in his necke; he is heauie of bodie; he hath eyes 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 manie wrinkles and plaits in the vpper part of his broome or brushing taile, and they are commonly counted to be as manie yeares old as there is wrinkles found in that place. Furthermore, an old Horse skinne drawne vp with our fingers abideth so a long time, but a young Horses falleth downe againe by and by. Also the vppermost ioint, at the setting on of a Horses taile close to his bodie, sheweth the age of a Horse: for if when you shall handle it, you find the bone standeth out and is easie to be felt, then you shall be assured that the Horse is young: but if the bone be not to be felt, but that the sterne seemeth plaine and smooth, then you shall be assured that the Horse is old; as aboue tenne at the least. Againe, if you put your finger into the Horses mouth, and feele his vpper tush, if you feele in the inside a little hole sharpe and shellie, then you shall be assured, that Horse is young, but if it be worne out and smooth, not to be felt, the Horse then is old; as aboue eleuen at the least: If the nether tush haue a ring (as it were) of new flesh about it, which may be discerned from the other flesh, then is the Horse young: but if the flesh be all smooth and plaine without difference, and the tush a little blunted, then is the Horse enclining to old age; as aboue nine at the least:

manie

manie other obseruations are held, but none truly certaine but these alreadie rehearsed.

It is likewise the charge of a Carter, 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 pownd Barly the double measure. He shall rub them verie well euerie day all ouer their bodies: assuring himselfe, that it doth more profit them, being often handed and rubbed, than to giue them a great deale of meat. Likewise some say, that the hand feedeth a Horse more than his meat. If they cannot stale, which is knowne by the swelling of the bladder, and about the yard, he shall make them drinke pottage made of a pint of Wine, stamped Garlicke, and tenne whites of egges: or else the iuice of red Coleworts, mixed with white Wine. In the meane time hee must take away from them their Oates and Barly altogether, and to feed them with nothing but their owne and accustomed Fodder and Grasse meat, to see and if they will recouer through the time of the yeare. It will be good also to put within the sheath of their yard a Collirie of Honey boyled with Salt, or else a Gnat or liue Flie, or quicke Fleas, or a prettie little piece of Frankincense: as also to lay vnto the Reines and Flankes Oyle mixed with Wine: or else to annoynt his yard with Wormewood stamped and boyled with Vineger; and moreouer, to squirt a Syring full of coole water against his cods. These Medicines are good when the Vrine hath scalded the priuie parts, or when they haue great heat in their Vrine.

To order sicke Horses.

Difficultie of vrine.

The scalding of the vrine.

The cruell paine of the Head, and rage of the Horse, is cured by the often vse of Smallage and much Branne, in which you shall haue chopped the leaues of Lettuce and Barly straw newly gathered: let him bloud vpon the place where the braine lyeth, or vpon the temples, or vpon both places, and let him stand in a verie darke Stable, and such a one as standeth low. You shall know if hee 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 heauie and hanging downe.

Paine of the head.

The ouer-cooled Horse is cured by giuing him to drinke Swines bloud all hot with Wine, or Masticke and Rue boyled with Honey, or a little common Oyle 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 hardeneth his hide: you must set him in a verie hot place, couering him verie warme with couerings downe to the ground, and putting vnder his bellie seuen or eight great thicke stones red hot, you shall quench them there, by casting warme water vpon them by a little and little, and oft, that so by this meanes the heat may make him sweat.

The Horse benummed with cold.

The naile in the eye shall be lifted vp with a little small needle of Iuorie, and then cut quite away with Scizars: or else make a powder of a greene Lizard, and Arsenicke, put it into the eye, for to fret away the naile.

The naile in the eye.

Against the suffusion there is a singular remedie: an Eye-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 eye that hath the suffusion, and to continue this remedie manie daies euening and morning: Or else blow into the eye through some Pipe or Quill the bone of Cuttle pownd small, or the seed of Rocket whole: or else the seed of the hearbe called *Tota bona*, and there let it alone, till by his vertue it haue cleansed and taken away the spots: or the powder of the yolke of an egge and salt burnt together, and put into the eye: or the powder of Sal-Armoniake, Myrrhe, Saffron, and the shauings of the Cuttle bone.

Against the bloud-shotten eie, pearle, and spots in the eies.

The strucken eie. The strucken eye 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 doe no good, you must open the head veine.

The bleared eye. The bleared eye is cured by an eye-salue made with frankincense, myrrhe, starch, and fine honie: as also by a frontlet made of frankincense & mastick finely powdred and

and brayed vvith the vvhites of egges, applied to the brows, and suffered there to lye vntill the eyes cease to shed teares, and after to raise the frontale vvith annointing the edges thereof vvith Oyle and warme water beaten together.

The scarres of the eyes are healed with rubbing them vvith your owne fasting spittle and Salt, or vvith the powder of the Cuttle-bone mingled vvith burnt Salt, or the seed of vvild Parsnep pounded, and pressed out of a linnen cloth vpon your eye scarres. *The skarre of the eyes.*

All paines of the eyes are cured by annointing them vvith the juice of Plantaine vvith Honie. *Paine of the eye.*

The Enceur doth bring present death vnto horses: vvherefore you must so soone as euer you see the brest kernell to be swolne, plucke it away immediatly 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 onely, but therewithall cause death. *The hartsore or swelling of the kernels of the hart.*

The horse hauing drunke much, or watered verie quickly after his heat and trauaile, and vpon it growing cold, and not being vvalked, doth beget the Auiues, which doe 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 throat hauing beene heated, vvhereupon the horse looseth his appetite to eat, and his rest likewise, and his eares become cold: 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 fleshinesse, which one would say to be nothing but a verie white sinew: plucke away the white carnositie or fleshie substance: lay to the place as well within as without, a linnen cloth dipt in the white of an egge, couer the horse by and by vvith a good couering, and vvalke 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 eat a little good Hay: let him rest three daies in the stable, and eat 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 remoue the humour, afterward applie a cataplasme made of Barley meale, and three ounces of Rosin, all boyled in due sort in good strong red wine; and when the matter shall be gathered and readie for suppuration, giue it a gash with a knife, to let the suppurated and ripe matter out, afterward put in the hollow place tents wet in water, oyle, and salt, with bolsters layd vpon them and dipt in the same. This disease craueth a speedie remedie, for and if you stay till the Auiues be gotten vp higher, it is past hope of curing. *The auiues.*

The Squinancie, otherwise called the disease of the throat, and swelling of the tongue, requireth first of all that the horse should be let bloud vpon the veine vnder the tongue, or of the palate of the mouth: after that, a fomentation for the whole mouth, and for the tongue with warme water: then after that, a liniment of the gall of an Oxe, or of salt and tartar beaten together with strong vinegar. And as concerning a drinke, you must take of Oyle two pound, of old wine a pottle, amongst all this you shall mix nine fat figges, with nine leekes heads: temper them all well together, 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 twice a day, that is morning and euening a quarter of a pint at a time. For his meat cause him to eat greene Barley, or Fetchets, or the meale of Barley, amongst which you shall mingle Nitre. *The squinancie or inflamation of the throte.*

The Strangles of a Horse, or Glandules, vvhich happen vnder his throat, and fall downe from the braine much cooled, are oftentimes cured by pricking him vnder the throat in the morning, afterward couer his head vvith some kind of Linnen cloth, and rubbe his throat oftentimes with fresh Butter, but especially the place of his disease. *The Strangles.*

The

The Barbes.

The Barbes hindering the Horse from eating, by reason of hauing the tongue swolne, are healed by making him eat Pease, Beanes, or the stalkes of Pease or Beans, because that the bruising and breaking of them causeth this swelling to go away: and if the Barbes doe grow there againe, you must cut them out with a verie sharpe yron, being likewise verie hot, for thus are they taken out of the hollow of the roofe of the mouth, and for the rest 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 Dialthœa.

To chase away flies.

Flies are kept away from Horses sores with pitch and oyle, or grease mingled and powred vpon them, and then by strawing Fetch flowers vpon them againe.

The paines of the gums and teeth.

The disease of the gums and teeth happeneth oftentimes vnto colts when they are growing their teeth, temper of fullers earth (the best you can come by is that of Reines) in verie strong vinegar, and therewith rubbe their jawes on the outside, but more a great deale in the place where the paine or swelled gums be.

The short winded horse.

The short winded Horse, or he which cannot easily draw his breath, and which hath his flankes beating incessantly, and which notwithstanding that he be pricked, haled, and whipped, will not stirre, but pant verie much, and blow exceedingly; yea and which eating of his meat cannot abstaine coughing: this same Horse wil 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 kind of dung in his prouender, the remedie for it may be, to draw bloud vpon him with a greene withie, and to powre hot vpon his breast and backe the said bloud mingled with wine and Oyle 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 nosthrils, wherein there is mixt a portion of Oyle, to giue him this drinke after: Mustard-seed 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 euerie morning the bignesse of a bigge Wall-nut, with sage, and with thicke red wine, but such as is good and noble: or else make him a drinke vvith cloues, ginger, cummine, fennell-seed, and the roots Galanga, as much of the one as of the other; all these being powdred, mingle therewith some egges, and a little safron, make the Horse to take it downe vvith Wine, holding his head high, to the end he may swallow the more easily, and not suffering him to hold it downe, at the least for a good halfe houre, to the end that the drinke may passe through his bowells: after this drinke, you shall giue him fresh grasse, or the leaues of Roses or vvillow tree, to temper the heat 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 eat any thing for the like space after the taking of it. Let him vvalke and lead him gently by the head-stall, or else getting vpon him, let him pace him verie softly, that so he may not cast it vp againe: and thus much for the cure of the short vvinded horse, if the disease be not growne too old. Which notwithstanding that it should be, yet you may relieue it for some time, if you seare him a little vpon both the sides of the flanks, to the end that this heat may cause to cease this great panting, vvhich doth paine him in his flankes: and if vvithall you slit his nosthrils, that so he may attract and draw in the aire and his breath, and as easily let it goe: besides these vvaies, I vvould haue you also to giue him to eat, some grapes oftentimes, and to drinke some sweet wine. Another singular remedie there is, which consisteth in giuing him a drinke made vvith Agaricke and Fenugreeke tempered vvith red Wine: or else to cause him to swallow the bloud of a little dogge, vvhich yet is not aboue ten daies old: or to take the roots of Gentian, of vvild cucumers, and bitter Almonds, and to poune therevvith Honie and Water, and to make a drinke thereof; or else to giue oftentimes to eat of siluer grasse.

The coughin a horse.

The Cough hath many causes, notwithstanding that vvhich commeth from the chest,

cheſt, as from the lungs and parts adjoyning, 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, than the ſlitting of the beaſts noſthrils, 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 each a quarter of a pecke, Gum-tragacanth, Olibanum, & Myrrhe, of each an ounce, Sugar, the oatmeale of great vvild Tare, of each an ounce, all theſe being vvell pouned and let run through a bagge, you ſhall cauſe it to be infuſed all a whole night in hot vvater, and the day following you ſhall giue it to the beaſt, as hath beene ſayd; and this ſhall be continued, adding thereto a bowle of oyle of Roſes, euen to the end of the cure. Some cauſe fiue egges to be layed to ſteepe one whole night in ſtrong Vinegar, and the next morning when they ſee that the ſhell is become verie tender and ſoft, they giue them to the horſe to take downe. Furthermore you muſt neuer draw bloud 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 Oyle.

The horſe hot Ague.

The ague of a horſe is cured by being let bloud vpon the veine, vvhich is found in the middeſt of the thigh, to the quantitie of ſixe ounces, or about the place vvhich is ſomewhat about the fundament: but if in neither of thoſe two places, or vvhere they cannot be found, you muſt take the necke veine toward the vvind-pipe: if you perceiue that there is need of a drinke, you ſhall ſtraine a handfull of Purſlane, and mingle the juice vvith Gum tragacanth, fine Frankincenſe, and a few Prouence Roſes, you ſhall make him take it all vvith honied vvater, in ſome prettie ſmall quantitie. It is knowne amongſt other markes that he hath an ague, if he haue the ſtopping of his vrine, and his eares become cold, withering and hanging downe.

The faintneſſe of the heart.

In the faintneſſe of the heart, it is good to keepe the horſe verie hot, and to giue him this drinke; Myrrhe two ounces, Gum-tragacanth foure ounces, Safron 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 ſpoonfulls thereof with one pinte of water, two ſpoonefulls of Honie, and two bowles of Oyle of Roſes. This drinke vvill ſerue for many daies, euen till the horſe doe find himſelfe better. And further, know that this drinke is good for thoſe that haue their backe or loynes broken, and members verie ſtiffe.

The broken backe.

The horſe ouer-heated.

For the horſe that is ouer-heated, you ſhall cauſe him to ſwallow with the horne in Winter three ounces of Oyle, vvith one pinte of red vvine, and in Sommer two ounces of Oyle onely, vvith the like quantitie of Wine that is aboue named.

Paine in the bellie.

In the paine of the bellie, vvhich ſome call the Birth, you ſhall take the ſeeds of vvild Rue, or of the garden Rue, you ſhall poune it well, and vvith hot vvine you ſhall make him a drinke: vnto this drinke you may adde Cummine and Fennel-ſeed in like quantitie, and after keepe him hot in ſome cloſe and vvell couered place: before you giue him this drinke, you muſt get vpon his backe, and vvalke 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 ſhall cloath him vvith a good vvoollen cloth, rubbing his flankes vvith Oyle, vntill ſuch time as he be become cold, and doe breake wind. It vvould be good alſo to conuey into his fundament ſome hollow joynt of a Reed or Roſe tree ſufficient thicke, and halfe a foot long, annointed vvith common Oyle, and let this ſame hollow Reed be in ſuch ſort faſtened vnto his taile, as that it may not by any meanes come forth, and this done then to get vpon the horſe, and to vvalke him. But howſoeuer things goe, you muſt let him haue meat of hot qualitie, and to drinke vvater boyled with Cummine and Fennell-ſeed in equall quantitie, mingling vvith it Wheat meale, and keeping it verie vvarme in a verie cloſe place.

Difficultie of vrine.

For the difficultie of vrine, it is an approued 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

cure vrine: but in anie case giue him them not in powder, clister, 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 Orpin and Brimstone, cast them vpon burning coales, and let the fume goe vp into the Horses nosthrils, that so the humors congealed aboue in his braine may be resolued and cast forth.

The Flying worme. For the Flying worme, take from him some bloud vpon the veines of the temples, applie a hot searing yron verie deepe vnder the throat, and in the hole put tents and plegets vpon them, moystened in the white of an egge, and after let him stand three dayes in the stable.

The Iauar. For the Iauar, take Pepper, as also the leaues of Coleworts, old Swines grease, and make an emplaister to be layd vpon the place.

The Figge. For the Figge, you must pare the hoofe so farre forward, as that you may make reasonable roome and space, betwixt the sole of the foot and the figge, then put a Spunge there, and tye it verie hard, that so the rest of the figge may be eaten away euen to the cleft.

The Wenne. For the Wenne, open it when you shall perceiue it to be full of matter, afterward make a plaister of Goose-turdes, wine, salt, and vinegar, and lay vnto the sore: beware in any case that there be not in the bottome of it some strange and vnwonted thing.

For a galled backe. For the galling of the backe that is new done, take two great Onions and make a decoction thereof in boyling water, afterward you shall applie 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 vinegar, 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 verie strong vinegar, lay aloft vpon it Lime made in powder, and mixt with Honie, continue this remedie so long as till the flesh be come againe, and the bone couered with it, then to cause the haire to grow vpon it, you must poune the shells of small nuts burned, and being mingled with oile, annoint the places wanting haire, and it will be ouergrowne in a short time.

A horse swayed in the backe. For a Horse swayed in the backe, or complayning of hauing beene ouerladen, applie vnto the reines of his backe an emplaister made of stone pitch, with the powder of Bole-Armoniake, Dragons-bloud, Olibanum, Mastieke, Galles, of each equall weight: let the plaister be layed 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.

The backe swoune. 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 dayes together: and the place if it be swolne and hard, it will be healed with Coleworts, Pellitorie, Wormewood, and Beares-breech, bruised together and stamped and boyled together with sweet Seame: applie it vnto the place offended and hurt.

The scabs of the heeles. For the disease called Graps, which are moules and scabbes on the heeles, peele away the scabbes, 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 bind it fast and close thereto, afterward take it away and annoint the place with an oyntment made of vinegar, Mutton Sewet, the gum of the Fire tree, and new wax of all alike, and boyle them altogether.

The iaundise. It is a singular good remedie for the Iaundise vvhich followeth: take of Panicke Corne, and Smallage, of each a pound, boyle them all vvith Lupines and good Honie, and of the whole strayned, make him take a Pint, eight daies together.

Costiuenes. If he be costiue, he may be helped by drinke or clyster; the drinke shall be such: giue him ordinarily of the powder of vvild Rue, with the seed thereof steeped in good red wine: or else take the root of yellow Flower-de-luce, with Annisseeds, and Opopanax: and of all these beaten together verie small, you shall make three doses

or

or draughts, vvith three ounces of good Red vvine, and as much Oyle oliue, and those on three seuerall dayes. In the clyster you shall put the juice of pale coloured Flower-de-luce in three pound of the decoction of Mallows and Perrie, and into the vvhole you shall put of Sall-nitrum, and the dung of Pigeons, of each an ounce, of Oyle-de-bayes, and Rue, of each three ounces. After the clyster giuen, he must be vvalked a great vvhile, and verie softly. Some Farriers or Horse-leaches haue in this disease made triall of Hares dung, with nine spoonefulls of Honie, and fiue grains of Pepper, to make a drinke to take with the broth of Cich Pease, or Red Coleworts.

The swelling of the horses flankes.

The Horse oftentimes hauing eaten too much Barley or other prouender that is hurtfull, is troubled vvith the swelling of his flankes, and the rest of his bodie: to take the same away, you must make a decoction of Mallowes, Pellitorie, Beares-breech, Mercurie, and other soluble hearbes, putting thereto, Bran, Salt, Honie, and Oyle: and hauing vvarmed this decoction, he shall haue a clyster giuen him with a clyster-pipe, hauing the shanke thereof proportionably great and long: this being well accomplished, annoint his bellie with Oyle, and after cause it to be rubbed vvith a round staffe by two men, beginning before, and so going backward, stopping vp his fundament: after this, get vpon him, and vvalke him verie softly, and a long time, vntill that he haue voided, not onely this clyster, but vvithall 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 bursten.

For bursting, or rupture, some are of opinion that there is nothing so soueraigne as to take seuen ounces of the ashes of the vvood of vine braunches, or of Elme, with three ounces of Oyle oliue, Scallions brayed, seuen in number, Honie three ounces, fresh Butter and Goats Sewet, of each an ounce, the juice of Plantaine three ounces, vvith old white vvine, or the broth of Cych Pease: this will serue for thrice, 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 heat, vvith the stinging of Flies: you must rub their haire vvith the juice of leaues of gourdes.

The farcie.

For the farcie of the legges, you must shaue the place, and after annoint it with the Oyle of Iuniper for the space of foure daies euening and morning, and let not the horse goe forth to water all the whiles that his haire is not growne againe: or else let him haue a strake vvith an yron, long-waies, and ouerthwhart: otherwise, for the farcie of a horse how hard to cure so euer it be, you must take the roots of common cotton thistle (which is the broad and white leaued thistle) and make him eat them in shiues with his oats, it will heale him without all faile, in lesse than fifteene daies, or three weekes, if it be continually giuen him to eat: and the remedie is verie easie, seeing the horse will willingly eat it.

Clefts.

For clefts which happen betwixt the joynt of the legge and the hoofe, shaue away the haire, wash the place with vvine, annoint it vvith an ointment made of Soot, Verdegrease, and Honie pouned and boyled together, mingling therewith in the end some Lime: if the chaps be verie deepe in, seare them.

For the scabbe.

For the scabbe you must let him bloud in conuenient places, according to that place vvhere the disease is: for a conuenient purge, it vvill be good to vse of the powder of the root of vvild Cucumber mingled vvith Sal-nitrum, and giuen in a horne vvith vvhite vvine: the medicine oftentimes giuen doth purge him of euill humours: for an outward remedie, take quicke Brimstone, fat Pitch, Clay of Iudea, called Asphaltum, mingle all together, and dissolue it in new Butter salted, and with this oyntment you shall rub him all ouer his bodie in the greatest heat of the Sunne, and by many persons, and a long time. If you loue not rather to take of vinegar a quarter of a pinte, of Perrosin foure ounces, Pitch or Gum of the Cedar-tree foure ounces, and mixe them all vvell together in an oyntment, vvith mans vrine and vvarme vvater, putting thereto of sweet Seame, and old Oyle, of each three ounces, make a liniment or cerote, if it like you not, better to vvash him all ouer, or else to foment him vvith vrine and warme vvater, and after to applie your liniment

ment vpon the places so washed. The hearbe called Rose-baie, or Oleander, boyled in Oyle (I meane the leaues onely) is an exquisite remedie for this disease, putting thereto fat pitch, vinegar, and waxe: and remember alwaies in rubbing and annointings to rubbe the beast against the haire. It is also a soueraigne remedie to currie him first in the scabbed place vntill it bleed, 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 boyled but steeped onely in the Lee. After the washing, you must annoint the place with an oyntment 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 bodie, by hauing eaten some bad Hay or Prouender, you shall make him this drinke: take the thin skinnes that are in the stomach of three Hens, and drie them vvell in an ouen, afterward powder them vvith halfe an ounce of pepper, and foure spoonefulls of Honie, and an ounce of the powder of fine Frankencense, make him take this medicine vvith a pint of vvarme vvine, and to the end that it may loosen his bellie, giue him at the fundament by a clyster sufficient great and long, a clyster of the decoction of Mallowes, Mercurie, Pellitorie, and other loosening hearbes, putting thereto Bran, Salt, Honie, and Oyle.

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, boile it well, and scum it altogether, and thereof make trochiskes of the bignesse of Filberts, and with a quarter of a pint 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 foure spoonefulls of Fennel-seed, and cause him to drinke it downe roundly with wine, and then couer him well to cause him to swear.

The swellings of the coddes. For the swelling of the cods or stones, make as it were a pap of strong vinegar, fullers clay and salt, to annoint the cods withall twice or thrice a day.

For a Fistula. For a Fistula: make the hole wider, seare it, cast into it a salue made of vnquencht Lime, so long as till the core or dead flesh within doe fall out.

For a Canker. For the canker: wash it with strong vinegar, afterward sprinkle vpon it the fine powder of the root Daffodils, Rats-bane, and Vnquencht-lime, put together into a pot, and burnt to ashes.

The Iauar or scab in the hams. For the Iauar in the houghs or hams: seare the places along and ouerthwart with a hot yron, afterward applie thereto a cataplasme made of verie new Oxe dung fried vpon the fire vvith Oyle.

The Horse cloyed. If the horse be cloyed, you must take out the naile, and pare him to the quicke and till bloud come, then making verie cleane the pared place to drop into it melted Brimstone, or to fill it vp with an oyntment made of Turpentine, Waxe, Oyle, Honie and Salt, all being made verie hot, and a little Cotton also dipped in the same oyntment. 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 old, then you must hold the horse foot 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 Vinegar, or the powder of gals, or mirtles, or of the mastick tree, and then to seare him aboue, and to fill vp all the hollow of the foot with Porkes-grease: and hauing thus dressed it so much, and so oft as it 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 abouesaid. And to preserue the hoofe in his soundnesse and strength, apply vnto it aloft a cataplasme made of boyled mallows stampt and mixt with horny and bran: put in the hollow of the hoofe the sewet of a sheepe, and aboue the hoofe his owne dung.

A lame Horse. For the horse which halteth because of some stroake giuen him by some other horse vpon his sinews: take of the sewet of a Male-goat a pound, Molibdena halfe a pound, Rosin a pound, and Copperas halfe a pound, make an oyntment. The sinew

stroken

ſtroken or wounded, or hauing receiued any other kind of wrench in the Knee or Ioynt, by the horſe his ſetting of his foot in ſome bad and inconuenient place, is healed by taking an ounce of Fenugreeke, as much of Linſeed, foure ounces of Swines-greaſe, all this being boyled together ſo long as till it be thicke, and much diminiſhed.

If the horſe interfering doe 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 thin 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, tie the veine called Fontanella, and giue it a wound with a flemme to let it bleed, and after to applie the actuall cauterie, or hot yron 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 end with a round hot yron: for this burne will keepe the chaps from going further, and then afterward rubbe them with waſhed Lard in diuers waters, or with oyle of Bayes mixt with Maſticke, Frankincenſe, Vinegar, and the yolke of an Egge. *Chaps & cliſts.*

The grapes would (when the haire is once taken away) be waſhed with the decoction of Mallows, of Brimſtone, and Mutton-ſewet, afterward applying the droſſie parts vnto the place, which being taken away, there ſhall an oyntment be made of new Wax, Turpentine, and Gum-arabecke equally mingled. *The grapes or ſcabbes.*

For the hornie ſwelling in the circle of the houghs or hams: you muſt ſhaue the diſeaſe and put vpon it the droſſie parts of the decoction of hollihocke roots ſtamped: and after that a plaiſter of Muſtard-ſeed, the roots of Mallows, and Oxe dung, all boyled together with Vinegar. *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 applie it to the ſore or wound. *For the diſeaſe called Paumon, or nauell galle.*

The diſeaſe of the hoofe or the corne: ſtampe Colewores 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 foot.*

For the garrot: plucke away the fleſh that is dead with a ſharpe inſtrument, and waſh the place with warme Wine, afterward applie plegets thereto moiſtened 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 yron ſharpe like a Naule, put a Seton through euerie hole, and let them abide there fifteene daies. *The diſeaſe of the necke.*

For the palamie: take away the fleſh from the palate of his mouth with a very fine inſtrument, and that in ſuch quantitie as that the humour may eaſily come forth, afterward cleanſe and rub his palate, with honie of Roſes, juice of Chiboles, Scallions, and burned Wheat. *The Palamie or bloudie chops in the palate.*

The courbe: cut the skin alongſt the haire, acording to the bigneſſe of the courbe, applie 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 courbe, or a long ſwelling beneath the elbow of the hough.*

For the Knee ſwollen: take a pinte of ſtrong vinegar, wherein you ſhall temper a little Salt, of burnt Copper halfe a pound, and of Sinople ſo much as ſhall be needfull and neceſſarie. *The ſwelling of the Knee.*

For the Knees that are broken and chapt: take common Oyle, Linſeed, aſhes of Rie-ſtraw, and all being put together make an oyntment thereof, to annoint the ſore place euening and morning vntill it be whole. *Broken and chapt Knees.*

For the chafings which moſt commonly happen vnto the necke or backe of a horſe carrying Saddle-packs, or Saddle: lay vpon the place the leaues of wild blacke Vine. *Chafings.*

In old and hard tumours make this cerote: Galbanum two ounces, Roſin, and Waxe, of each a pound, Gum-ammoniacke, and blacke Pitch, of each halfe a pound, *Old tumours.*

and of oyle ſo much as ſhall be needfull to incorporate and make vp all the reſt in good forme. But if the tumor be broake and hollow, and hath beene an old ſore of verie long continuance, then you ſhall diſſolue a quarter of a pound of Allome in a pinte of running water, and with it firſt waſh the ſore verie vvell, and then take *Unguentum Ægyptiacum*, and lay it vpon the ſore vvith flax hurds; doe thus once or twice a day, and the cure will ſoone be made perfect.

Wormes and bots. Againſt the bots or vvormes, make him drinke vvater vvherein Rye hath boyled, or mingle amongſt his bran ſome Brimſtone: or make athes of the wood of the Oliue-tree, or powder of dried Wormewood, together with the cornes of raw Lupines, and Centaurie alike much of all, two ounces of the ſeed of turneps, harts-horne one ounce, and vvith vvhite vvine 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-galls, and an ounce of Aloes.

The current. Againſt the flux of the bellie, which ſome vſe to call the current, there is made a drinke of great ſeruice and vſe of the powder of gals, with red vvine, and the flower of ſtarch tempered together: or elſe if the flux come of taking cold, giue him ſops dipt in ſweet Red vvine and Roſe-water; and rub his reines and bellie with Red vvine, Oyle of Roſes, and a little Salt.

Flux of bloud. For the flux of bloud paſſing by vrine, you muſt let him bloud of the veine of the breaſt: afterward make a decoction of Wheat with ſweet Seame, and the powder of the rinds of drie Pomegranats, ſtraine them all to make a drinke for to giue him euerie morning, not putting him to any trauell at all. Likewiſe you ſhall applie a cataplaſme vnto his backe and reines, made vvith Knotgraſſe, Bole armoniacke, and the bloud of the beaſt, mingled together with ſtrong vinegar or thicke red vvine, which may alſo ſerue for them that haue their reines relaxed, or haue beene pricked vvith a Lancet.

The reſtie horſe. A reſtie horſe for to make him goe forward, muſt haue a coarde tyed 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 hold it in his hands, and ſo may pull it hard whenas the horſe ſhould offer to goe backward: but if it be in a Gelding, you muſt bumbaſt his buttocks 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.

Poyſon eaten. If the horſe at any time vvith eating of his hay doe eat any venimous beaſt, as Scorpion, Spider, or the venimous flie called Bupreſtis: he muſt be couered till he ſweat, and then in all haſt let him bloud in the roofe of his mouth, which ſo ſoone as it is run forth, ſhall be giuen him againe to drinke warme, and in ſuch quantitie as it came forth; for his meat, giue him leekes and wheat boyled together. Looke more aboue in the Chapter of the Neat-heard or Oxe-keeper.

The ſtinging of Vipers. For the ſtinging of Vipers, a liue Cocke ſlit through the middeſt, and applied warme vnto the vvound is much worth: and preſently after this, a powder of the root of yellow Daffodill, with ſtrong vvine and Salt made all in a drinke for him: or elſe the root, leaues, and fruit of vvild vine made in aſhes, and drunke with good Wine: or elſe take preſently that kind of bugloſſe, called *Echium*, and draw out of it a good pint of juice, hauing firſt watered it vvith vvhite vvine or vvater of *Carduus benedictus*. If you perceiue that the leafe vvill not yeeld you juice ynough of it ſelfe, make the horſe firſt to drinke that vvhich you haue, and after applie the ſubſtance of the hearbe vpon and about the ſtung place, and couer it.

The biting of the Shrew. The Shrew by her biting of the Horſe, maketh him oftentimes to dye, as vve haue oftentimes ſeene both in Horſe and Oxen: this is a beaſt as bigge as a Mouſe, of the colour of a Weſill, vvith a long ſnout and a ſhort tayle: ſhe faſteneth vpon and infecteth moſt chiefly the cods, and maketh foure ſmall vvounds: for to heale this venimous biting, you muſt cauſe him preſently to take downe through the noſe bay-leaues ſtamped or powdred with vvater: and to applie vnto the place that is bitten,

Cum-

Cummin and Garleeke ſtamped together: and in caſe there be any vlcer, you muſt foment the place with Brine, or with the decoction of the Mirtle-tree, and to ſcatter and ſprinkle thereupon the powder of burned Barley, or of a Pomegranat rinde. Looke more in the chapter of the Ox-keeper.

The biting of a mad dogge.

The biting of a madde dogge 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 old white Wine, and cauſe him to drinke it. Alſo the root of the Eglantine-tree made in powder, and put vpon the wound, or giuen him to drinke with good old Wine. Likewiſe the Berries of Elder-tree, or the juice of the leaues thereof, or of Aſhe-tree.

Hens dung ſwallowed by the horſe.

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 his bellie rumble, and that he begin to dung.

The leane horſe.

The leane horſe may be made fat, if you giue him to eat Faſels or long Peaſe boyled in vvater, 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-yolkes with ſugar in verie good quantitie: warme vvater, mixt with Salt and meale of Millet, and giuen to the horſe, doth greatly fat him. Alſo Panicke, Rice, and Millet boyled, and mixt with Beane-meale and Salt, are excellent good, and it would be giuen him foure 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 kind of rage, that is to ſay, vvhen they ſee their owne pictures in the vvater they are taken with loue: and hereupon they forget to eat and drinke, and drie vp their heat or ſigne of deſiring the horſe. The ſignes of this madneſſe are manifeſted by their running through the paſtures, as if they were ſpurred, oftentimes looking round about them, as if they ſought and deſired ſomething. They are cured of this madneſſe by being brought vnto the water; for when they ſee by their ſhadows how ill fauoured they be, they will forget the firſt ſhape which they had beheld before.

Yellowes.

For a Horſe that is troubled with the Yellowes, you ſhall firſt let him bloud in the necke veine and in the roofe of the mouth: then take a quart of Ale, a handfull of Celandine, fiue ſpoonefuls of Honey, three ounces of Cummin ſeed beaten to pouder, a little Saffron, and a handfull of Tyme, boile theſe together, then ſtraine it, and giue it the Horſe to drinke luke warme.

Stagger.

If your Horſe be troubled with the Staggers, you ſhall firſt let him bloud in the necke veine, and take from him great ſtore of bloud: then take Veriuice and Bay ſalt beaten together, with a good prettie quantitie of Aſſafetida, and dip in Flax hurds therein, ſtop it hard into the Horſes eares, and then bind them vp ſo as the medicine may by no meanes fall out; and doe thus diuers daies together: and if need require, let him bloud againe the ſecond day on the other ſide of the necke: let him ſtand warme, lye ſoft, and by no meanes drinke anie cold water.

Peſtilence.

For the Gargyll or Peſtilence amongſt Horſes, take Hennes dung, and mix it verie well with old vrine, and then boyle them together, and being luke warme, giue the Horſe a pint, or a little more, to drinke two or three mornings together: then, as was before ſaid, let him ſtand warme, lye ſoft, and by no meanes drinke anie cold water.

Cords.

If your Horſe be troubled with the Cords, take a corued made of the brow-antler of an old Stagges horne, and thruſt it vnder the Cord, and twynd it tenne or twelue times about, till the Horſe be conſtrained to lift vp his foot, then cut the Cord aſunder, and put a little ſalt into the wound, and waſh him after with Beefe-broth, and the cure will be effected.

Rheume in the Eye.

If your Horſe be troubled with a Rhewme deſcending downe into his eyes, you ſhall take Bole-armoniake, *Terra ſigillata*, *Sanguis Draconis*, of each a like quantitie, ſcrape them, then adde the white of an egge and vineger, ſo much as will ſerue to moiſt them, then ſpread it vpon a piece of leather plaſter-wiſe, and lay

it to the temples of the Horses head, three or foure daies together, and it will both stay and drie vp the rheume.

A wart. If a vvarte, Pearle, or any other naughtie substance shall grow vvithin the eye of your horse, you shall take burnt Allome, and vvhite Copperas, and grind them to a verie fine powder, and then vvith a Goose or Swans quill blow some of the powder into the horses eye, and it vvill soone eat away the excression and clense the eye, and make it faire and perfect.

A Straine. For any straine vvhatsoeuer, vvhether it be in sinew or in bone, you shall take Bole-armoniack, Vinegar, vvhites of Egges, and Beane-flower, and mix them vvell together till it come to be a good thicke salue, then spread it vpon a cloth, and lay it exceeding hot to the straine, renewing it once in fiue and twentie houres, and it will cure it.

Spauen. If your horse be troubled vvith spauens, you shall take a good quantitie of Linseed, and bruise it vvell in a Morter, then mixe it verie vvell vvith Cow dung, and put in into a Frying-pan, and boyle it vvell therein vpon a quicke fire, then verie hot applie it to the Spauen, not forgetting to renew it once euerie day till it haue brought the Spauen to a head, and breake it like an ordinarie impostumation; then hauing run two or three daies, you shall lay a plaister of Pitch vpon it, and so heale vp the sore as in case of other vleers.

To know diseases by their signes. Now for as much as to know medicines for diseases is to little or no purpose, except a man know the disease, I vvill here in a briefe manner shew you the signes of all the most generall and hidden infirmities that are in horses, therefore first to begin vvith the outward parts: that you may know where the griefe is vvhen at any time a horse halteth, you shall note these few obseruations following, first if he halt before, and set but his Toe to the ground, it is most certaine that the greiefe is in his hoofe; but if vvhen he halteth, he bend not his pasterne, then be you vvell assured the griefe lyeth in the joynt: If he halt more vvhen you turne him than when he goeth right forward, or forbeareth his foot more in the turning than in going, then the griefe questionlesse is in the shoulder or the thigh; or if vvhen he standeth still he setteth one foot a good deale more forward than the other, the griefe is then in the shoulder or vpper parts also, as in the Knee or Knuckle of the Elbow: If he goe bowing to the ground, and tread his steps verie thicke, the griefe is in the brest: If he halt behind, and in his gate set but his Toe to the ground, the griefe is in the foot, or in the stifle; but if he refuse to touch the ground at all, then the griefe is in the Buttocke. Now to know whereof these griefes doe proceed, you shall vnderstand that if the griefe proceed of a hot cause, then he most halteth when he trauelleth, or is chafed, and the further he goes, the worse and worse he goes: but if it proceed of a cold cause, then he halteth most when he rests or stands still, and at his first going out out of a journey, but after a little chafing he goeth vpright againe. Now if the horses halt be secret, and as it were halfe vnpercenable, insomuch that you are incertaine vvhether he halteth yea or no, you shall suffer him to runne at the vttermost length of his halter, vvithout any stay or ease of your hand, and then without doubt if he haue any hidden maladie or griefe whatsoeuer, he will easily discouer it: and thus much for the signes of griefes in the outward parts. Now for the signes of griefe in the inward parts, you shall obserue, that if your horse be slower in labour, or duller of the spurre, or shorter breathed, or if his eares hang downe more than they were wont, if his haire stare, if his flanke be more hollow, if he burne or glow betwixt the eares, if he refuse his meat, or if his mouth be drie and clammie in his trauell, all these are generall signes of inward sicknesse: If a horse hold his head downe in the Manger, be heauie and dimme sighted, it is a signe of a Feauer, headach, heartach, foundring in the bodie, or the Staggers.

Signes of inward griefes.

If a Horse turne his head backe, and looke to his bodie as to the place grieued, it is signe of obstructions in the Liuer, especially when he looketh to the right side, but if he looke further, as to his bellie, then it is a signe of Wormes or Colicke; when thin vvater runneth from his mouth, it is a signe of Staggers, or a vvet Cough.

A stink-

A ſtinking breath, and foule mattar at his noſe, is a ſigne of an Vlcer in the noſe: but if the mattar be white, then the Glaunders; if blacke, then the mourning of the Chyne; if yellow, then the conſumption of the Liuer: but if he caſt little lumpes out of his mouth, then it ſheweth rotten Lungs. If the Horſes bodie and breath be hot, and withall he loath his meat, it is a ſigne of a Feuer, ſurfet in the Stomacke, or the drie or moiſt Yellowes. A palpable ſwelling on both ſides the forehead, ſheweth the Staggers; betweene the eares, the Poll-euill; vnder the eares, the Viues; in the mouth, the Flapps, or Lampas; vnder the throat, the Glaunders; in the tongue, the Strangles; on the left ſide, the Spleene; in the bellie and legges, the Dropſie; and in the flanke, the Collicke. To cough, or to offer to cough, ſhewes a Cold, or ſome feather or ſuch like thing in his wezand. To ſtagger, or goe reeling, ſheweth the Staggers: yet if ſuch ſtaggering be behind onely, then it ſhewes Foundring in the bodie, or paine in the Kidneyes: Trembling or ſhaking ſhewes a Feuer, or the Foundring in the bodie: Hollowneſſe of the backe, ſhewes the drie Maladie, or the Dropſie: ſtaling with paine, ſhewes the Stone: leaneneſſe and gauntneſſe ſhewes Hide-bound, Wormes, or a Conſumption: looſeneſſe of bodie ſhewes an inflamed Liuer; and coſtiueneſſe, the Yellowes and ſickneſſe of the Spleene: A Horſes dung much ſtinking, ſhewes a hot Liuer; not ſmelling, a cold Liuer; hardly diſgeſted, then a Conſumption, or the drie Maladie: A deſire to lye downe on the right ſide, ſhewes heat in the Liuer; on the left, diſeaſe in the Spleene: to be oft vp and downe, Bots, or Wormes: If he ſpread himſelfe when he lyes down, ſhewes the Dropſie: if he groane when he is downe, ſhewes a ſicke Spleene: and not able to riſe when he is downe, ſhewes Feebleneſſe, Foundring in the bodie or legges, or elſe Death: To be troubled with Wind, ſhewes the Collicke; deſire to eat, and not to be thirſtie, ſhewes a cold Liuer; deſire to drinke, and not to eat, a Feuer, or ouer-trauelling; and greedie eating and drinking, ſhewes rotten Lungs. 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 Oxe-keeper aboue handled.

The Horſe-leacherie of P. Vegetius tranſlated by the Author.

Chap. XXIX.

Of the Aſſe.

NOtwithſtanding that the Aſſe is but a baſe and contemptible thing, yet he is verie neceſſarie in euerie Countrey Houſe, becauſe he trauelleth and doth his neceſſarie worke better than if he were greater and more corpulent: as to turne the Mill, to grind 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 anie other thing backe againe home vpon his backe: to toile the earth that is light, and not ſtrong and 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, rheumatike, and ſuch other like diſeaſes; as alſo for to make neat, to white, make tender and ſmooth the faces of women: as wee read 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 and to ſay nothing of the fleſh of the Aſſe, which whiles it is young is verie delicate, and full of pleaſant toſt 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 verie good ſieues to riddle

The milke of an Aſſe good for them in conſumptions: and for to make faire the countenances of women.

the corne, as also tabers to daunce by, and drums for the warres. Wherefore the good housholder must appoint him also one to order and gouerne him, vvho notwithstanding shall not be much busied in taking charge of and looking to him, seeing he is verie easie and light to keepe: he is contented vvith a little meat, and that of any sort euen such as one vvill giue him: for some feed him only 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 feed 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 vvell as a great banket: he looketh not worse, vvhen he is ill handled and curried of him, vvho hath the charge of him: he doth easily endure strokes and hunger, and is not easily tainted of any disease: notwithstanding the Asse-keeper shall haue care that the She-asse may be couered in due time, that is to say, from mid March vntill Iune, to the end that foaling about the end of the yeare, it may happen to be in the spring of new Grasse, and the age of the Asse to be couered must be from three yeares to ten: at which time you must giue leaue to the She-asse to run, in regard 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 vvill bring him to an habite of slothfulnesse. He shall suffer the young Asse to sucke it damme vntill it be two yeares old: or else you shal let it sucke a Mare, because it is somewhat better: he shall not set the young Asse to labour before it be three yeares old, vvhich is the time vvherein you must accustome it to beare burthens, to draw in the plough, and to serue to ride vpon. The Asse that is not aboue ten yeres old, nor younger than three, vvhich is great, vvell squared in his parts, hauing sufficient grosse eyes, vvide nosthrills, long necke, broad breast, high shoulders, great backe, a large chyne or crest, great cods, a flat crupper, a short taile, his haire drawing toward the colour of blacke, flecke, and listed, hauing a blacke 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 said, this beast is not verie subiect to diseases) and that by vsing such remedies as he doth vnto horses.

Rest maketh an Asse alwaies after vnfit for labour.

The markes of a good Asse.

The diseases of the Asse.

The Asses-hide.

The housholder being a good husband, shall keepe the hide of his Asse, to tan and dresse to make shooes as vvell 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 shall scarce see any end of them, though you vveare them amongst stones, grauell, thornes, or other such like places, notwithstanding vvith their lasting they grow so hard as that they cannot be worne any more.

The Asses-hoofe.

The hoofe of an Asse burnt and made in powder doth heale the Falling-sicknesse, and that of the vvild Asse hanged about the necke, or set in a ring, in such sort as that it may touch the flesh, is singular good against the said disease, as also against the swimming of the head, which commeth through a weaknesse of the braine. Some thinke that the vvild Asse is that vvhich 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 trauelled into Polonia, say, that the Ellend doth resemble the Asse in nothing but in her eares, as otherwise in all points almost being like vnto the Hare; hauing a cloven foot, 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 to shew his vertue, and to make to appeare 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.

CHAP.

Chap. XXX.

Of the Mule-keeper.

A Good House-holder must not be vnfurnished of things necessarie for his House, whether they serue for food and sustenance, or for ease. Wherefore although in respect of some manner of worke he may be content to want Mules, hauing the benefit of Horse to carrie him to the Market and other places whither his businesse shall call him: yet notwithstanding the Mule is necessarie for his easement, whether it be that he would rather ride vpon Mules than vpon Horses, because of their easier pacing; or that, by reason of age, or want of health of bodie, he cannot endure the trauell of a Horse, but is constrained to prouide a Horse-litter 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 vsed to toile the earth, to trauaile, and doe other necessarie things tending to the commoditie and maintenance of the House; to say nothing that Mules are proper Beasts, strong and able to carrie great and heauie burthens, as Trunkes, sackes of Corne and Meale, and such other burthens which Horses could not beare.

The Mules of Auernia.

The ordering and charge of Mules is like vnto that of Horses, as well in respect of their meat, 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 verie same commodities that may be raised of the Asse, and that is principally of goodly Herds and Flocks. Hence he shall chuse 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 sit the turne, and be well conditioned, yet that which doth, cannot be but valiant and couragious: And although that male and female Mules be engendred 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 Mare: 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 end you may haue goodly 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 chuse one that is three yeares old and vpward, great and corpulent, of a strong neck, strong and large ribbes, of an open and musculous or fleshie breast, fleshie thighes, well-trussed legges, of a blacke colour, or flea-bitten with red, tending to a bright, or of a gray siluer colour, or of a darke murrey 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 forth either male or female Mule wearing this liuerie, they are not so good and sutable. The Mare must be lesse than tenne yeares old, great and faire, and of good limbes, to the end she may take and keepe the nature of the Asse, disagreeing with her bodie, and being of another kind than she her selfe; and that she bestow vpon her fruit not onely the gifts of the bodie, but also of spirit and liuelinesse. The young stayeth in the dammes bodie twelue moneths: wherefore the Mare would be couered from mid March vnto mid Iune, to the end she may foale when grasse is in full force, thereby to be sure to get good store of Milke. She hauing brought forth her young one, it must be vsed after the manner of young Colts, excepted onely, that after it hath sucked sixe moneths, the damme can giue it sucke no longer,

The diuers maners of the engendring of male and female Mules.

The markes of a good Asse to couer she Mules.

longer, by reason of the ach of her teats: but it must be made to sucke some Mare, that so it may grow more lustie: or you must let it goe with the damme, that it may learne to eat, so that still it be prouided of milke to sucke.

Signes of a good Horse-Mule.

The Horse-mule well chosen, must be of a grosse and round bodie, hauing small feet, and thinne legges and drie, a full and large crupper, a broad and soft breast, a long and compassed necke, a drie and small head. On the contrarie, the Mare-Mule must haue her legges somewhat grosse and round, a straight and solide bodie, and a crupper hanging towards the taile. The Mare-Mules are stronger, mightier, nimbler, and longer liuers than the Horse-Mules: but the Horse-Mules are more tractable and more easie to guide and learne than the Mare-Mules be. Both of them are subiect to lunacie: but to take this fault 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 fore-legges euen vnto their thighes, to the end that in the meane time they may not fall backward. If they be hard to shoe on the right foot behind, you must tie vp the left before.

Of a good Mare-Mule.

The diseases of the Horse and Mare-Mule. Ague. Difficultie of breath. Scabs in the pasternes. Leanenes. Cough. Collicke. Wearinesse and ouer-heating.

The Mare-Mule is subiect to the same diseases that the Horse, as hath beene said; notwithstanding there is something peculiar in them, for which the remedies doe follow: When she hath an Ague, you must giue her raw Coleworts: when she bloweth and sigheth much, and hath a short wind, you must let her bloud, and afterward giue her to drinke three quarters of a pint of Wine, with halfe an ounce of Oyle, and as much Frankincense, and two pints of the iuice of Horehound. If shee haue the moules and scabs about her pasternes, called the Grapes, you must put vpon them Barly meale, and open the impostume, if anie thing be in it. Their leanenesse and languishing is taken away, by giuing them oftentimes drinkes made with halfe an ounce of Brimstone beaten, a raw egge, and a dramme 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 throat.

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 smoake of the hoofe of a Mare-Mule.

The fume of the hoofe of a Mare-Mule put vpon hot coales, and set on fire, is so odious vnto Rats and Mice that are in the house, that they by and by feeling the smell, runne away with great swiftnesse: of which you may make triall.

The end of the first Booke.

THE

THE SECOND BOOKE OF THE COVNTRIE HOVSE.

OF GARDENS.

CHAP. I.

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 runne through all that belongeth to the building and inclosing of a Farme, the office of the chiefe Lord, and of the Farmer and his people, and generally whatsoeuer concerneth the raising of profit by keeping of Cattell. Wee 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 breadth of three fathomes, 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 euerie 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 Orchards inclosure. This Hedge shall be planted likewise with Hasell trees, Goose-berrie bushes white and red, Pepper trees, Curran trees, Eglantines, Brambles, Wood-bind, the wild Vines, both the Hollies, Elder trees, and intermingled now and then by the way with white Thornes, wild Apple trees, and Apples of Paradise, Ceruise trees, Medlar trees, and Oliue trees: for it must be more thicke, and a greater defence than anie other, to preuent danger of Cattell getting loose, which might a great deale more endammage the good and profit of their Master, than they could anie way pleasure him. Yet in the planting of your Quick-sets, according to the opinion of *Serres*, you shall haue great consideration to the nature of the ground on which you plant them: as, which are apt for Quick-sets, which not apt; and which Quick-set is apt for which ground, as thus: Your clayne and stiffe clayes which are without anie mixture of sand, are slow in bringing forth Quick-set, yet hauing once taken root, they preserue and maintaine their Quick-sets longest, and therefore the blacke and white Thorne, mingled with wild Apple trees, Ceruise trees, Medlar trees, Oliue trees, or anie other which carrieth bodie and substance. Your mixt Hasell soyles, which are Clay and Sand of an equall

A Quick-set Hedge.

equall temper, or your fast and close Sands, which doe not diuide or runne to a generall dust, are the kindliest of all other to bring forth Quick-sets, and do preserue and maintaine them for a conuenient time (though not so long as the Clayes) and are verie speedie in bringing forth, therefore anie Quick-set is meet to be planted on such Soyles, whether they be Trees, Shrubs, or Bushes, as those before spoken of, together with anie thing else that will take root: But your grauellie, flintie, or loose Sands, which fall away, and neuer fasten vnto the root, are the most barren of all other, and seldome, or with great difficultie, bring forth anie good Quick-set at all: yet Industrie (which is the Mother of all profits) hath found out by experience, that the best Quick-set which can grow vpon these Soyles, is the common Bramble or wild Brier, cut to the length of two foot, or thereabouts, and so planted in the earth, and amongst them mingled, three or foure foot asunder, here and there diuers blacke Thornes: then when the Brambles begin to shoot forth, to interlace them and twynd them bought-wise about the blacke Thornes, making one bought runne into another, and plashing them both vpward and downe-ward so close one within another, that they may seeme like a Lattice-window; and euer and anon to vphold and maintaine the earth to their roots, till they be well fastened within the ground, and then they will hold vp the earth afterwards themselues. By this experiment onely hath beene seene, in diuers of these most barren Soyles, as strong, as thicke, and as defensible Quick-sets, as in anie other Soyle whatsoeuer: as is daily apparent to mens eyes both in France, England, and the Low Countries.

The Garden doore.

The situation of the said Gardens must be (as we haue said before) neere vnto the House, placed vpon the North rather than 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 foot thereof receiuing the streame of some pleasant running water, either from some Spring and Fountaine, or from some Well, or else from the falling of the Raine: but farre remoued from the Threshing-floore and Barne, to the end that the hearbes may not be hurt by the dust, dyrt, small straw, or chaffe, which might be conueyed along from the Threshing-floore vnto the Garden by the wind when the Corne is in threshing: for such chaffe hauing taken hold vpon the leaues, doth pierce them and fret them through, and being thus pierced, they burne and parch away presently. Likewise, for the benefit of their labour, it must be iustly lined out and cast into a Square verie equally and vniformally, but yet somewhat sloping, for the conueyance of the fall of Raine water, and of the moisture of the dunghill, which continually will be thereby running downeward 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 be kept two other Gardens (if possibly it may be) seuered and separated by other Hedges, and a great path betwixt them, containing in breadth no lesse than three fathomes or eighteene foot, euerie one finely paued with good Pit stones, or burned Tyles, 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 & speciall 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 things, for they serue greatly for the keeping of your familie. Yet you shall vnderstand, that albeit I thus particularly appoint you these two seuerall Gardens, the one for Hempe and Flax, the other for hastie Pease, Beanes, and such like, being right necessarie for your household vse; yet notwithstanding you may sow anie of those seeds abroad in your Fields, or in anie other remote Croft or Close well tilled for the purpose, with fully as much profit & conueniencie, especially your Hempe and Flax: for you shall vnderstand, that there be some Soyles so rich and fat, that after you haue sowne Wheat, Barly, and Pease, successiuely yeare after yeare, that then in stead of fallowing and giuing your land rest, you may that yeare sow a full crop of Hempe, which

The paths in the Garden.

destroying

destroying the weeds and superfluous growths which spring from the fertilenesse of the Soyles, makes your land apt and readie to receiue either Wheat or Barly againe; and so you neuer loose anie Crop at all, but haue euerie yeare something to reape from your ground: whereas, should you let it rest, and bestow meanure vpon it as in case of more barren earth, you would so much ouer-rich it, that it would either mildewe and spoyle your Graine, or else choake and slay it with the aboundance of Weeds which the earth would vtter forth of it owne accord. Againe, if your land lye with your neighbours in common amongst the generall Fields, here a land, and there a land, or here two and three, and there two and three, as it is a generall custome in diuers places, and that such lands doe butt vpon greene Swarthe, or Grasse-grounds, which are likewise common, and on which both your selfe and your neighbours must necessarily teather your Cattell; which Cattell if at anie time they breake loose, or by the negligence of their Keepers be stalld too neere the Corne, may doe you much hurt on your Graine: in this case, and to preuent this euill, you shall sow the ends of all such lands as butt on the grasse, tenne or twelue foot in length, as your land may conueniently spare, with Hempe, for vpon it no Cattell will bite: so that in either of these cases aforesaid you shall not need much to respect the preseruation of your Hempe or Flax Garden.

The Inclosures of the Gardens must be such as the commoditie and necessitie of the place doth require, that is to say, of Walls, if the reuenues of the House will beare it, or of a strong and thicke Quick-set 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 Quick-set Hedge than with a Wall: for the Quick-set Hedge doth endure a longer time, and asketh not so great charges neither to trimme 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 euen when the time of the yeare seruetb, as wee see here in manie 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 conueyed 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 Countrey men, is of Thornes, Osiers, and Reedes: but such Hedges doe require almost euerie yeare new repaire, reliefe, and making, in putting new stakes therein; whereas if it had an abiding and liuing root, it would free the Gardeners of a great deale of trouble, cost, and trauell. *The Inclosure.*

The ground of the Gardens must bee good, of his owne nature free from Stones, Durt, and hurtfull Hearbes, well broken and dunged a yeare 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 goodnesse of it, the Clayie, Stiffe, or Sandie 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 Pick-axe, and becommeth small with labouring, as the small Sand; and generally, all grounds that are good for Wheat, are good for Gardens. It is requisite also, to the end it may bring forth greene Hearbes in aboundance, that it be a reasonable moist ground: for neyther the ground that is much drie, nor that which is much subiect to water, is good for Gardens. Notwithstanding, if the Grounds belonging vnto the Farme happen not to haue this commoditie of idle and vnimployed ground to make Gardens, you must remedie that soare as well as possibly you may. The Clayie, Stiffe, and Sandie places must bee amended by Dung and Marle, and would bee cast three foot deepe. The Watrie place shall bee made better, if there bee mixt with it some Sandie or Granellie Ground, and therewith cast it round about *Grounds.*

about with ditches, thereby to draine and draw out the water annoying the Garden. And thus the good Husband shall doe his endeuour to amend and make in some sort his ground more fruitfull. Let the dung which he layeth vpon it, be either of Sheepe, or of Swine, or of Horse, or Pigeons, or Asses, according as the nature of the ground shall require; or of Oxe or Cow: for albeit some Gardners thinke it of too coole a nature, and not so nourishing vnto tender hearbs as the other which are more hot, yet they are greatly mistaken therein: for it melloweth the earth, and enricheth it more than auie of the other, and maketh it more apt to sprout and put forth his encrease: besides, it doth naturally affect no weeds, if it haue better seed to worke vpon: Whence it commeth, that the Garden so manured keepeth his hearbes euer the cleanest, fullest, and largest. Also Ashes are a verie good meanure for Gardens, especially if the ground be apt to chap or breake into great rifts, as diuers Clay grounds are: neither, if the soyle be answerable thereunto, shall you omit Marle, Sand, Chalke, Lyme, or such like. 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 kind of rottennesse, 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 *Letamen*, and Frenchmen *Litiere*, 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 roots of trees, but first (where there is need) of the shortest earth, and afterward of dung.

Hedges. The Hedge of Quick-set, 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 end of euerie eight feet, some Elmes, wild Plumme trees, and Cherrie trees, by the support whereof, as of faithfull props and staies, it will wind and bind it selfe more firmely. This Hedge shall be verie well digged and helped with dung for a foot depth, cut neere vnto the root some two yeares after, and pruned euerie yeare, to keepe it round and euen, as also to make it grow thicke: and you must suffer to grow in height and thicknesse such Trees as shall be planted therein, to serue for Stakes and as Poles for your Arbors; and the moe Elmes you can put in this your Hedge, and the rest which shall part your Garden of Huswiferie and Pulse, the better it will be, either for the making of Faggots euerie yeare, and that so they may themselues spread more in thicknesse, as also for Timber-wood for your Ploughes, and other Implements: as also that they may ouer-grow such Arbors as you shal plant at their feet, and wherewith 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 find it in the third and sixt Booke.

Chap. II.

Of the Arbors of the Kitchin Garden.

EVen as the Garden of Pleasure is to be set about with Arbors, couered with Iesamin, Maries seale, Muske Roses, Mirtle trees, Bay trees, Woodbind, Vines, Gourds, Cucumbers, Muske Melons, Prympe, sweet Bryer, and other rare things: euen so shall the Kitchin Garden be set with Turrets of Lattice fashion, couered ouer with Burdeaux Vines, or with the best sets of Vines that are to be got in the Countrey, for to make Veriuice on, for prouision and commoditie of the Household.

The fashion of an Arbor. The fashion of the Arbor shall be in manner of a shadowie place (for Arbors are costly to maintaine) to the end you may draw certaine Beds vnderneath, or some floore

floore of hearbes, which craue no great cherishing and refreshing, leauing notwithstanding an alley of three foot breadth both on the one side and on the other, for the dispatching of such worke as is to be bestowed vpon the Arbor. 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 foot and a thicke that maketh a faire and a beautifull fruit. The Lattice-worke may not be too thicke set or wrought: and it must rise and grow higher for the space of fiue whole yeares, and be renewed and new tied euerie yeare about the end of the moneth of Ianuarie with the twigges of your Willowes and Osiers, or of the Broome of your Warren: although if you make your poles of Iuniper wood, you shall not need to trouble your hand with them for tenne or twelue yeares, especially if you strengthen your poles with piles of Oake halfe burnt. Also if your poles be of dead wood, and of no stocks growing or encreasing, if then you bind them with strong wyre, it shall be best of all, for that shall last the longest, and keepe your poles, by their fastnesse of knitting, longer sound than anie other binding whatsoeuer. Tie not the poles of your Lattice-worke strait, nor the stocks against the trees of your hedge which shall serue for stakes, for so in time the band would eat it selfe into the rinde as they should grow thicker, and doe them great harme. And I would not haue you to forget to dung and vncouer the roots of your stocks in Winter, and to marke the young wood for to make sets to sell, or to store your selfe withall euerie day more and more: Gather not their Grapes verie ripe, or verie greene, nor yet when it raineth. Finally, the ordering of the Arbor is like the ordering of the Vine, and would be but a superfluous thing to stand anie 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 hereafter declared.

The binding of the Arbor.

The worke of the Arbor and of the Vine is alike.

Chap. III.

Of the digging and casting of the Kitchin Garden.

AS concerning the dressing of the Kitchin or Household Garden, in as much as there are two seasons in the yeare for to sow hearbes, 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 workmanship and tilth be bestowed about the beginning of Nouember vpon that ground which we intend to sow in the Spring, and to digge in the moneth of May such other grounds as we intend to sow in Autumne, to the intent that by the cold of Winter, or by the heat of Summer, 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 workmanship, it will be good that the ground for one whole or halfe yeare 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 vnimployed, 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 chew his meat with leisure, and breaketh his meat throughly, and so by that meanes doth make his dung better digested, and better ground than other beasts doe, and which also for that cause doth beget almost no weeds. In stead of dung, the chaffe and troden straw of Corne, hauing rotted in the high waies for the space of a yeare,

All manner of ground, by being long sowne, doth grow leane.

may ſerue, which being by nature verie hot, doth ſo greatly fat the earth, as that the Hearbes, Trees, Citrons, Limons, Oranges, Cucumbers, Citruls, and all other plants planted in that ground, or ſowne, doe come vp verie faire, and beare fruit verie quickly and in great aboundance. 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 verie well with the earth. For the third tilth it ſhall be clotted, layd 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 weed them, or to rake them, may from out of the ſaid little Pathes be able to reach into the middeſt of the Bed, and not to tread with their feet vpon that which is or ſhall be ſowne. Wherefore, if your ſaid little Pathes be two foot wide, it will be ynough: for to make them anie broader, is but waſte, and loſſe of ground.

Chap. IIII.

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 Cyues.
Onions.
Chiboles.
Carrets.

You 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 ioyne 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, you ſhall prepare other floores by themſelues, for Spinach, Beetes, Arrach, Rocket, Parſley, and Sorrell. Againe, you ſhall make another path of other three feet: and on the further ſide you ſhall quarter out a Bed for Leekes and Cyues, and ioyne thereunto two other for Onions and Chiboles, and for Garlicke, Scallions, and Carrets. By the ſide of theſe floores you ſhall make out a path of three feet and a halfe, and after it, you ſhall make manie 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 pot-hearbs. And it will be good to this end to prepare a Bed for Sage, and another for Hyſope; one for Thyme, and another for Marierome, and another for Lauander, and another for Roſemarie, and another for Sothernwood, and another for ſmall Cypreſſe: againe, one for Sauorie, for Hyſope, Coſtmarie, Baſill, Spike, Balme, Pennyryall, and one of Camomill, for to make Seats and a Labyrinth.

Sage and Hyſope.

A Labyrinth.

It ſhall be good alſo for neceſſitie ſake (for it concerneth the good Huſwife to know manie remedies for diſeaſes, and you muſt not doubt but that I my ſelfe haue learned manie remedies from the experiments and obſeruation of thoſe ſorts of women) to ſhape out below, or in the further end of the Kitchin Garden, neere to the incloſed ground for Fruits, certaine Beds for Phyſick hearbes, as for Valerian, Milfoile, Aſparagus, Mugwort, Aſarum Bacchar, Houſeleeke, Patience, Mercurie, Pellitorie, Nicotiana, and other ſuch like, whereof we will make ſome ſhort mention hereafter.

Chap. V.

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 encrease of the Moone of March, your seed of Lettuce and Purcelane (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 seed of Pimpernell, Harts horne, Prick-madame, and Sorrell of England, and other sorts for Salades, all thicke, and hand ouer head, one among another, to separate and set at large by themselues when they be growne. Looke verie well to your seeds, that they be not too old, that they be winnowed and cleane, that they be moist and oylie, but not mouldie; and by the edges of this Bed, the breadth of two hands, you shall sow Artichokes. You shall also make a Bed for fine hearbes, which in Winter serue for the Pot, being kept drie, and 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 sow the seeds and kernels of Citrons, Oranges, Limons, Pomegranats, Myrtle trees, Bay trees, and Date trees in: and seeing they are hard to grow in this Countrey, 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 seeds 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 verie much heat and excessiue cold, and to couer & vse them daintily according to the times, and as shall be said hereafter. In another Bed, which shall be a verie long one, and toward the Quick-set Hedge and the Arbors, you shall sow Cucumbers, Citruls, long and round Gourds. In a plot long and narrow like the former (because they must be oft watred, and water powred at their roots) you may sow Melons of diuers sorts.

Lettuce seed.

To chuse seeds.

Fine hearbs.

Seeds that will hardly grow.

Cucumbers and Citruls.

And for feare of flying Fowle and Birds, cast Thornes verie thicke vpon your Beds; and, if they be sowne in the encrease of the Moone in Februarie, for to haue them the sooner to grow, yea though it be in March, yet spread vpon the Thornes straw, and that such as is bright, and let it be thicke, that so it may the better defend them from the danger of the Frosts: which if you perceiue to be great, as it falleth out some yeares, spread ouer them, in stead of straw, old or whole Mats, and yet in such manner, as that they may not lye pressing of the earth, thereby to oppresse and keepe downe that which would spring and grow vp. Or for a more perfect suretie, both to preserue your seeds in growing, and to maintaine such as are growne, how tender soeuer their natures be, from all manner of Frosts, Stormes, or Colds, which either the Winter or Spring can anie way produce, you shall take halfe-rotten Horse-litter, and with it lightly couer all your Hearbes, Seeds, or whatsoeuer else you feare the sharpenesse of the Winter may annoy: for besides that it is a defence and couering against the bitternesse of all weathers, it hath also in it a certaine warme qualitie, which nourisheth and strengtheneth the Plants, and makes them more forward than otherwise they would be by diuers weekes: besides, it keepeth your hearbes from running into the ground, and hiding their heads in the Winter season, and as if they were comforted with a continuall spring, keepes them fresh and greene, and fit for your vse at all times. 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 hearbes and fruits 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 tast and verdure.

Chap. VI.

Of the time of sowing the Kitchin Garden.

The power of the encrease of the Moone.

ALl seeds which are for the store of the Kitchin Garden, must be sowne and remoued in the encrease of the Moone, as namely, from the first day vnto the sixt: for those that are sowne in the decrease, they either come vp slowly, or else they be nothing worth. Besides that, although you sow in the encrease of the Moone, it sometime falleth out, that notwithstanding your seed 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 anie thing at all. Although that *Palladius* the Husbandman say, That the Earth, which hath the fauour and benefit of a sweet and mild ayre, and is watered with some running streame, is in all points and respects free, and not tyed or bound to anie lawes of sowing: but hee cannot denie, that whatsoeuer groweth, whether it be Plant or Seed, hath two ends, that is to say, the Root, which hath altogether to doe with the Earth, and the Branches, or vppermost part thereof, which hath altogether to doe with the Ayre and the Heauens: and that the obseruations drawne from superior bodies, as from the proceeding and disposition of the Moone, doe shew and proue the ouerthwarts and crosse incumbrances wrought against the creatures of the earth, both in their putting forth of the earth, and drawing to stalke, as also in the gouernment of them afterward.

To sow seeds in the Spring.

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 mildnesse and gentlenesse of the yeare following doth entertaine in verie good sort the growing seeds; and the drinesse of the Summer cannot hurt them, because of the water prest and at hand. But when as the situation of the place hath no naturall supply of running water, or else such as is verie 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 sow in Autumne; and yet one may well sow there in the Spring, so that you cast your earth three foot deepe.

To sow seeds in Summer.

At what time seed must be sowne in cold and hot places.

If a man be disposed to sow Seeds in Summer, it must be in the encrease of the Moone of Iuly and August; and in Autumne, in the encrease 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 heat from the Sunne beames, the sowing in the Spring time must be toward the later end thereof; and that in Autumne, must be hastened and early performed. On the contrarie, the sowing of Seeds in the Spring time in a hot place must be early performed: and the Sowing or Seed-time of Autumne must be somewhat deferred. Seeds doe grow the better when they be sowne vpon warme daies, or daies that are neither hot nor cold, than and if they be sowne vpon hot, cold, or drie daies. The Seed that is to be sowne, must not be aboue a yeare old: otherwise, if they be verie old, drie, wrinkled, leane, soft, false or vntimely gathered, they will neuer grow nor thriue. Wherefore, by how much the newer the seeds of Cucumers, Melons, Leekes, and Gourds be, so much the sooner they grow: On the contrarie, by how much the elder the seeds of Parsely, 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. Coleworts and Spinach

The age of seeds.

of

of all ſorts, white Succorie, Garlicke, Leekes, and Onions, are ſowne in Autumne, and liue all Winter. Coleworts, Rocket, Creſſes, Coriander, Cheruill, Nauets, Turneps, Radiſhes, Parſneps, Carrets, Parſely, Fennell, and other hearbes, whoſe roots are good in pottage, are ſowne in Autumne and in the Spring, notwithſtanding they grow better being ſowne in Iuly in hot Countries, and in Auguſt in Countries indifferent hot, and in September in cold Countries. Lettuce, Sorrell, Purcelane, Cucumbers, Gourds, Sauorie, Harts-horne, Trick-madame, Beets, and other tender hearbes, as alſo Artichokes, are ſowne 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.

Aboue all, the Seeds which are to be ſowne muſt be well-conditioned, full, heauie, corpulent, groſſe, hauing a good colour, yeelding a white flower when they be broken, not duſtie: for duſt falling from them when they be broken, sheweth, that they are corrupted and nothing worth.

Chap. VII.

Within what ſpace Seeds 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 Seed, doe cauſe Seeds 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 ſhew it ſelfe ſooner than that which is ſowne in a contrarie time and place) yet euerie Seed 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, and looke for the growth of euerie Seed: Spinach, Baſill, Nauets, and Rocket, grow within three daies after they be ſowne; Lettuce, the fourth day; Cucumbers and Citruls, the fifth; Purcelane a little later; Anniſe, the fourth; Creſſes and Muſtard-ſeed, the fifth; Beets in Summer, on the ſixt; and in Winter, on the tenth; Arach, the eight; Coleworts, the tenth; Leekes, the nineteenth, or after the twentieth; Coriander about the fiue and twentieth, or elſe more late, if the Seed be new; Organie and Sauorie, after the thirtieth; Parſely in the fortieth, for the moſt part, and oftentimes in the fiftieth. It is true, that in this place the age of the Seed, and ſtate of the Aire, when the Gardiner doth ſow them, is of great moment: for (as I haue ſaid) the Leeke, Cucumber, and Citrull, grow ſooner if the Seed be new: And on the contrarie, Parſely, Spinach, Organie, Sauorie, Coriander, and Creſſes, when their Seed is ſold: likewiſe the Seed of Cucumbers, 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 manie other hearbes, as you ſhall know hereafter in their particular Treatiſes.

Chap. VIII.

Of watering, weeding, ſweeping, and cutting of Pothearbes.

SO ſoone as the ground is full of Seeds in all places, you muſt be carefull to water it, if by hap the place be drie of his owne nature, that ſo the Seed may not be hindered of his ſprouting by the too much drineſſe, or that the hearbe alreadie 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

Watring.

What water is good for Seeds.

not heat the hearbes, for it waſheth and cleanſeth them from the duſt and vermine that eateth them, eſpecially if the Raine come driuing with a Northerne wind: for want 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 hearbes, although that *Theophraſtus* ſay, that ſalt water is more conuenient than anie other to water certaine plants. Beſides, you ſhall vnderſtand, that for the ſpeedie growing of hearbes, or for comforting them after they are once ſprouted and riſen aboue the earth, there is nothing in the world better, or more comfortable, than Sope ſuds, after they haue beene waſht in, and are verie well cooled. The dregges of Ale, or lees of Wine, are verie good to water Roſemarie with, or anie other tender Hearbe, Flower, or Plant whatſoeuer. The time to water them, is the euening and morning, not the mid-day, for feare that the water, heated by the heat of the Sunne, might burne them at the root.

What time is good to water.

Weeding and raking.

After that the hearbes haue begun to put forth, you muſt weed the bad from the good, whoſe nouriſhment they would conſume and ouer-ſhadow them withall: this muſt be done with a forked trowell whiles they be verie ſmall, and with the hand (which Gardiners call by the name of making cleane) when the pot-hearbes are growne ſtrong and great. Some doe alſo weed them thus, as well for the weight of the earth, and heauie falling of the water vpon them, as alſo becauſe of the trampling of folkes feet, whereby the earth becommeth hard: Wherefore if the earth be ſoft, you need not to rake it but verie ſlightly. And you muſt know, that weeding is neceſſarie for Gardens at all times, except in the height of Winter, that is to ſay, from Nouember till March: in all which time it is not good to weed, becauſe thoſe weeds which doe then grow doe not offend or choake the hearbes, but rather keepe them warme and comfort them: whereas, ſhould they be taken away, you would leaue the ſtemme and roots of your hearbes ſo naked to all the bitterneſſe of Winter, that euerie ſmall Rinde or Froſt would endanger the vtter killing and deſtroying of them, as you may find by proofe, if you pleaſe not to giue credit to our relation.

Clipping or cutting of hearbes.

Cutting of hearbes is alſo profitable for them at what time as they be ſomewhat 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 than they had in their firſt ſtalke. By this meanes Lettuces and Coleworts are made better, and of a more pleaſant taſte, if their firſt leaues bee pluckt from them. In like manner, Turneps and Nauets grow more beautifull, and tufted, if their leaues be cut. But all hearbes muſt not be cut at all times: for ſuch as haue a hollow ſtalke, as Onions, and others, if they be cut when it rayneth, the blade or ſtalke of the Onion is filled full of water, and rotteth. And this is the cauſe why hearbes of ſuch nature are not to be cut but in a faire and drie time: Or if not cut at all, it is better, except it be to keepe them from ſeeding, or to make the head a little the fairer; which, freſh moulding will better doe, and with leſſe labour. As for your Scallions, Chyues, or Leekes, to cut them it is not amiſſe, becauſe they are hearbes continually to be vſed for the Pot; and in that reſpect, the oftener cut, ſo much the better.

CHAP.

Chap. IX.

Of setting and remouing of Pothearbes.

TO giue the greater scope and libertie to hearbes, 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, vvhen they haue foure or fiue leaues out of the ground: and this may be done at any time, but specially see that the season be inclining to moistnesse and raine: and they must be set in ground that is vvell furnished vvith fat, vvithout any amending of it vvith dung. If the time fall not out rainie, you must vvater 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 roots, and set them thinne, that so they may be vvet, and haue their earth lightened vvhen need requireth, and that thereby they may grow better and fairer. And of these hearbes vvhich are thus to be remoued, none is more necessarie than the Lettuce, because being very swift of growth, and naturally apt to mount if it be not corrected and stayed by remouing, it will presently runne to seed, and loose that vertue for which it is principally preserued: Therefore the sooner you remoue your Lettuce (prouided that you haue a shower to doe it in) the better it is, and the sooner it will Cabbage and gather in his leaues, growing hard, firme, and thick: Also, if after their remouing you lay some heauie Tyle or Slate stones vpon them, which may a little presse downe their leaues, it will be so much the better, and they will Cabbage so much the sooner: Generally, what hearbes soeuer you would keepe from seed, that you may thereby take the profit of the leafe, and keepe the full strength of the hearbe in the same, you shall, as soone as you perceiue some leaues to be sprung aboue the ground, forthwith remoue them into some other new-digged Beds of good and perfect Mould well broken and manured for the purpose: and in this remouing of your hearbes, you shall obserue to set them rather deeper than shallower than they were before, and to fixe the earth close and fast about them, and not to forget to water them, as aforesaid, till you see they haue taken fast root, and begin to shoot vp.

Slips for the Garden, of sweet and fragrant hearbes, are gathered at all times, and they would be of young sprigges of a yeare old, taking part of the old wood; and wrything that, to put it into the earth: or else cleauing it below, and putting in the cleft an Oat, and round about it some other graines of Oates rather than dung; for hearbes that are remoued, doe not require dung at their roots, but rather they haue need that the lowest parts of their roots should be a little steeped in water, as I will shew hereafter. *Slips.*

Chap. X.

Of gathering and keeping the seeds, roots, and flowers of Pothearbes.

ROotes for the most part are gathered when the leaues are fallen off: and in like sort are the flowers gathered, as Borage, Buglosse, All-good, and Marigolds, when they are throughly open: notwithstanding, the flowers of Roses and Capers must be gathered, to be kept, while they be shut: likewise the leaues and whole hearbes are gathered when they are growne to the full: fruits, as Melons, Cucumbers, Citruls, and Gourds, when they turne yellow, and are growne to their perfection. If they be purposed to be made serue for seed, then *Gathering.*

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. Seeds are gathered when the hearbe is all layd and drie. And it must generally be obserued in all manner of gathering, as well of hearbes, flowers, roots, as of fruits and seeds, that it be done in a faire and cleare weather, and in the decrease of the Moone.

The time to gather Seeds.

The way to keepe hearbes.

Such hearbes as are to be kept, must first be made verie 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 bagges of Leather, not of vvollen stuffe, nor in vvoodden boxes, that so they may not loose their vertue, as we see it put in practise by fine hearbes which are kept to be vsed in Winter. Wherefore me thinkes that the Apothecaries faile much in their doings, which hang their physicke hearbes in the roofe of their house, for by this meanes they doe not onely spend their force, but become laden with dust, cobwebs, the dung of flies, and a thousand other filthie things.

The way to keepe flowers.

Flowers must not be dried in the Sunne, nor in the shadow that is made by the South-Sunne, nor yet in any high roome, because of their tendernesse and delicatenesse, which would cause their force to vanish away, either in the burning heat of the Sunne, or in the more moderne heat of the verie ayre. 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 doe 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 loose their colour nor their smell. And when they are dried, they must be put into an earthen vessell.

To keepe Prouence Roses.

To keepe seeds.

Seeds must be kept in bagges or vessells of earth which haue narrow mouthes, or in boxes, or else in bottles of the rindes of gourds well stopt and set in verie drie places, and where there is no water shed; for seeds doe mightily spoyle with moisture. The seeds of Chibols, Onions, and Leekes, as also of Poppie, are kept in their rindes or heads.

To keepe roots.

For to keepe Roots, you must obserue two waies: 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 drie: For to keepe them new, you must lay them vpon sand or grauell verie 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 cleare 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 Sun when it is in the South, or else 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 hearbes, flowers, and roots, as well greene as drie, should not be put to keepe in any place where the wind should come, but rather shut vp in vessells or some other such like meanes of keeping of them, to the end that they should not loose their force, which indeed they might most easily loose, being kept open and subiect to the wind.

CHAP.

Chap. XI.

Pot-hearbes, and particularly of Coleworts.

FIrst of all we are to speake of Coleworts, both because they are most common, and also most aboundant of all other sorts of hearbs: all kinds of Coleworts doe loue a cleane ground, fat, and well tilled, not consisting of clay or sand. And although they grow indifferently in any ayre, but especially in a temperate, yet they become greater and more massie, sound and safe from vermine in cold places, as are those in Germanie, than in hot places, and for that cause they delight a great deale more in the tops of hills than in plaine grounds; and yet in those plaine grounds more in the raised parts of borders than in the flat and middle parts thereof, and they be more pleasant, more wholesome for the stomach, and better in Autumne, Spring-time, and during great frosts, than they be in Sommer. They craue much dung, and that especially which is of Asses, as being the best of all for other men: and to be raked in & couered ouer with good earth: not to be watered in any case; notwithstanding that water doth make them looke faire and flourishing, but then not so sweet to the tast, nor so wholesome for the stomach. When they haue got sixe leaues vpon their stalkes, you must remoue them, but let it be in a mild and calme time whether Winter or Sommer. And to speake particularly the common Coleworts, called long or greene Coleworts, 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 remoue them in December, to haue the leaues in Winter, and the seed in Iune and Iulie, and that to make them the more tuffed, though there may be as much accomplished that way at other times of the yeare; but not so commodiously. *Common Coleworts.*

And looke well to it, that your seed be not too old, for if it be three yeares old, it will bring forth Radishes. And that is the cause why some say, Sow Coleworts, and there will grow vp Radishes or Nauets: notwithstanding it continueth sixe yeares in his nature, if it be well kept. *The seed too old. Prouerbe.*

Cabage-colewort, which are called white or apple Coleworts, are sowen vpon beds, and remoued to stand a foot one from another, well couered at the root with a free and enriched earth, when they begin to rise vp into a great stemme; and loue the cold ayre, for in a hot aire they cannot liue: and you must couer them with straw to make them cabage the better, and become the whiter. The curled and Romane Coleworts being more tender by nature, are sowen in March, and are planted farre within the yeare, and couet to be oft watered. *Cabage-cole.* *The curled cole.*

When you see the leaues of Coleworts waxe bleake and pale, or yellow, it is a signe that it needeth water: and you must oftentimes take from them their yellow leaues, as also those which are eaten thorough, or rotten, or dried; for this would make them die.

If you would haue Coleworts of a good tast and pleasant, take away their first leaues; for those which come after will haue a better tast, and more pleasant sauour than the first. *Coleworts of a good tast.*

Red Coleworts grow naturally of the aboundance 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. *Red Coleworts.*

Doe not at any time gather, or at the least vse the tops and edges of the curled Romane Colewort, neither yet of any other, but the rest of the leafe downe toward the stalke.

All sorts of Coleworts may be planted at any times; prouided it be not too hot or too cold: and when you plant them, breake their root, for feare it be not doubled a- *The planting of Coleworts.*

gaine

gaine or turned vpside-downe in the earth, and that you put it not so farre in, as that there be nothing of the top left aboue.

The watering of Coleworts.

Some men vse to water Coleworts with Salt-water to make them the more tender: and some doe cast and sow Salt-peter amongst them vpon the vpper face of the earth: or else small ashes sifted to keepe them from Locusts, Palmar-vvormes, Caterpillars, and other vermine. Aboue all things the Colewort may not be planted neere vnto the Vine, nor the Vine neere vnto the Colewort: for there is such great enmitie betwixt these two plants, that being both of them planted in one ground, after they be come 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 vvine, be it neuer so little, in the pot where Coleworts are boyling, that then the Coleworts will leaue boyling by and by, and not boyle any more, but loose their colour. Likewise such as are disposed to drink much wine and not to be drunke with it, must eat some raw Coleworts aforehand, as the Almaignes are wont to doe, when they meane to quaffe you off a whole pot together, and to ouercome such as with whom they striue in drinking. The Coleworts also may not be planted neere vnto Organy, Rue, and Sow-bread: for being set or sowen neere vnto these hearbes, it thriueth not at all, and againe it infecteth his neighbours with some of his ill qualities.

The enmitie betwixt wine, the vine, and the Colewort.

Coleworts doe keepe one from being drunke.

Coleworts enemie vnto Organie and Rue.

Rotten Coleworts.

The carefull Gardener must neuer abide to haue in his Garden so much as one rotten cole, nor yet water his hearbes with the water wherein Coleworts haue beene steept or boyled: for both the one and the other doth cause his neighbour hearbs to haue an ill tast and sauour.

The vertues of Coleworts.

A good huswife will haue Coleworts in her garden at all times, for the reliefe of her familie: for besides food, she may comfort her people with them in the time of sicknesse: As thus, the first decoction especially of red Coleworts, with Butter or Oyle, 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 juice also of Coleworts is good for these diseases, if you put Sugar to it: the seed of Coleworts in broath or in powder, is good against the Wormes of little children: Coleworts boyled in two or three waters doe stay the laske: Coleworts boyled and sprinkled with Long-pepper and eaten with the broth, causeth great store of milke in nurses: the juice of Coleworts drunke, doth expell and kill the poyson of Toad-stooles: the pith of the Colewort boyled with fat and scummed honie, is singular for such as are short breathed to vse in manner of a lotion. To be short, the Colewort is good for all things, whereof the Romans when time was, made such account, as that hauing expelled all other physicke out of Rome for the space of an hundred and fiftie yeares, they vsed no other physicke but Coleworts in all manner of diseases. The Lee made with the ashes of Coleworts is good to wash the head. The breasts fomented with the decoction of Coleworts increaseth the milke of nurses. The ashes of Coleworts mixt with the white of an egge doth heale burnings. Cataplasmes made of boyled Coleworts and mingled with the lees of vinegar, two yolkes of raw egges, and a little cleere vinegar 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 foulenesse (wherein flesh hath been accustomed to be boyled and water to be heated, as chafer, yron pot, brasse pot, or such like, and which cannot by any other meanes be sufficiently scoured) than to boyle Coleworts in it.

CHAP.

CHAP. XII.

Of Lettuce.

SOw your Lettuce as thicke as the Colewort, 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 choyce of sunnie and warme places, and such as are well stored of dung well rotted, notwithstanding that it will wax hard with Winter, and may continue some time being planted again. It must be watered once in euerie two or three daies, if the weather be not dropping and moist. And in the sowing of it, you must water it, for feare that the heat of the dung should cast out the seed: it putteth forth of the earth the fiftieth day after it is sowen. Being growne aboue the bed, the height of foure 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 roots and shankes with cows, goats, or sheepes dung, for so they will be of a better tast, and water them at the foot, but it must not be when it is either verie hot or verie cold.

The curled and cabbaged Lettuce.

Some doe nourish foure sorts of Lettuces here vvith 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 vvhite; the common; and the little and small Lettuce: Men vse not to plant the small or common lettuce, but the great one, which will be curled, and that which will cabbage, otherwise called the Romane Lettuce, vvhich hath a vvhite seed, and a greater than the other, and is of a sweeter relish, especially if his first stalke be cut away, which it putteth forth after it hath beene planted the second time, for the first stalke hauing in it verie much milke, doth easily become bitter by the heat of the Sunne. If you desire that it should haue great leaues, when as it beginneth to put forth a stalke, cut off the same in the halfe, then put vpon it a clod of earth, or some small tyle. If you couet to haue it faire and vvhite, 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 Romane Lettuce.

White Lettuce.

Cabbaged lettuce.

The cabbaged Lettuce 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 root some cowes dung that is verie new, afterward tread it downe againe, and vvater it, and vvhen it beginneth to gather strength and grow, cleaue the branch vvhich it putteth forth, 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 vvill become tufted, cabbaged and vvhite: or else if you vvould haue beautifull and faire lettuces, two daies before you take them vp by the roots, 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 manner, sand cast vpon them maketh them to become white. If you feare that it will not grow hard ynough, by reason of some fault in the place, or in the time, or seed, take it vp and set it in some other place.

White and faire Lettuces.

To cause Lettuce to smell well.

To cause Lettuces to haue a sweet smell more than ordinarie, sow them with the kernels of Citrons, or else steepe the seeds in Damaske, or other sweet water, three whole daies together.

Salad hearbs mixt together.

To mingle Lettuce with other Salad hearbes, as Rocket, Sorrell, and such like, and that in such sort, as that they may all grow vp together from one and the same root, put all your sorts of Seeds into a Sheepes trottle made good and hollow for the purpose; afterward set it verie deepe, as namely about the depth of eighteene ynches in the ground, and water it oft, and by little and little, and haue great care and regard vnto it when it putteth forth of the earth. Others do crumble & breake three or foure

trotles

trottles of a Goat or Sheepe, and put their seeds in the middest thereof, and then couer them with a linnen cloth fast bound in manner of a knot, and doe plant them as it were in the vppermost part of the earth, verie diligently 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 stead 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 Lettuce. The Lettuce is not without good physicke helpes, for it cooleth the heart, looseth the bellie, causeth aboundance of good bloud. The juice thereof mixt with Oyle of Roses, asswageth the paine of the head, and causeth the sicke of agues to sleepe being rubbed vpon the brows and temples: it serueth for a Gargarisme with the juyce of Pomegranats, for the Inflammation of the throat: being rubbed vpon the Cods, it staieth the night pollutions or Gonorrhæa, especially if thereunto be added a little Camphire: the seed thereof beaten with the seed of white Poppie in forme of a milk or extract doth effect the same, and also cureth the scalding and burning of the vrine: the seed thereof steept in water, wherein hath beene quenched steele, with some small quantitie of Iuorie powdred, is verie soueraigne against the white flowres of women. The leaues of Lettuce boyled and moystned in broth, or salades of them in like manner after supper, doth prouoke sleepe: the seed thereof powdred, and mixt with the milke of a woman that hath brought forth a daughter, and the white of an egge, serueth to make frontale for the verie same purpose. The decoction of the leaues of lettuce boyled in Barley water and drunke, causeth great quantitie of milke in Nurses, if afterwards the dugges be well rubbed with the hand: such as haue a short breath, spit bloud, or haue weake lungs, as also such as desire to haue children, must not eat Lettuces.

Chap. XIII.

Of Endiue, Sowthistle, and Succorie.

Endiue. Endiue hauing narrow leaues (otherwise called Scariole, or sowre, or wild Lettuce, and of the Latines *Intybus* or *Seris*) is more seruiceable in Physicke than any other wayes, and is not planted in Gardens, because it is alwaies bitter, notwithstanding that it be of the sorts of Lettuce, or rather of Succorie. It is true, that in often planting and transplanting of it, and in remouing it from one place to another, and by binding and couering 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 Gardiner may be kept all Winter: which thing our Gardiners haue practised, seeing by experience that wild Succorie becommeth faire and flourishing after it hath beene ouerflowen with water, and couered with sand or earth.

Sowthistle. Sowthistle, called in Latine *Sonchus*, or *Cicerbita*, was of old time 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 sweet and of a pleasant tast: 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 drop certaine drops thereof into them, especially if you cause it to boyle with some Oyle in the rind of a Pomegranat: it healeth thorowly the strangurie and paines in making water, if it be drunke to the quantitie of a pottle. The leaues of Sowthistle chewed, doe take away the stinking of the mouth.

Succorie. Succorie is of the nature of Endiue, hauing large leaues, and without husbanding

ding and good handling doth alwaies continue bitter. It loueth a moist place, and well laboured ground. When it hath put forth foure leaues, you must translate it to a well dunged soyle. 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 tyle; 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 looseth his bitternesse, and then there is vse to be had of it in sallades in Winter, and it is called white Succorie; and to this end it is wont to be planted againe in the end of August: after that in the beginning of September, to the end that the leaues thereof may be the greater, it must be taken vp without the breaking of any thing, and with a smal blade of a straw haue the leaues tied together very easily and gently, without wringing or brusing of them: afterward it must be layed in a well manured soyle, 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 vvhich there must straw be cast to keepe it from frost and bad winds: the like is done with Endiue, and it is found white when it is pulled vp againe; and it is verie delicate in eating. Some for the same end, vvhen Succorie hath put forth his leaues, tye them all together with a verie 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 looseth a great part of his bitternesse.

Euerie man knoweth that the decoction of Succorie drunke in manner of an Apozeme, is good for them which haue the jaundise or heat of the liuer. The juice of Succorie drunke euerie second day fasting, stayeth the spitting of bloud. Succorie stamped and put vnder the left dugge doth heale the heart-ache. Some say that the decoction of vvild Succorie often drunke, maketh the visages and countenances of women more cleare and pleasant.

The vertues of Succorie.

Spitting of bloud.

Chap. XIIII.

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 need not to take any more but the great leaues with their branches, of such as bring forth 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 stalkes, and burie 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 ynough of it selfe, for to make sprootes and young 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 yeare following they may bring forth new fruit.

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 yeare 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 verie small, and blacke earth that is verie fine, mixt together, and aboue the same place prick or thrust

To sow Artichokes vpon beds.

in the seed of your Artichoke two inches within the earth, the small end vpward, and putting fiue or sixe seeds 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 as soone as the Artichoke hath leaues bigge ynough, it must be watered; and this watering continued in such places as are verie drie, that so it may bring forth a tender and great fruit. Aboue all things care must be had that the small end be not cleane contrarie put downeward, for then it would bring forth writhen, weake, small, and hard Artichokes. You must also make choice of the fairest and greatest seed that may be found, and that the small pits be made a good fathome 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 seed, because there commeth fruit the sooner of the one than of the other, and because that in so planting of them, you may be occupied and well imployed euerie moneth, and so reape your fruit in diuers seasons of the yeare, according as the earth is fat or leane, hot or cold, moist or drie, or as the ground is hardly agreeing with and vnfit for this plant. And in anie case plant of those that beare the fairest fruit, according as there are diuers sorts, in respect of their thicknesse, length, roundnesse, diuers colours, and tast, some also being prickly, and some without pricks. For of Artichokes there be diuers kinds; as the round and the long, the red and the greene: the round, which is greene, is a good Artichoke, so is the red, although it be long, yet the soale is but thinne, neither is the leafe verie substantiall, onely it is exceeding pleasant in tast: the greene, which is long, is of all sorts the worst, for it neither beareth good soale nor good leafe, but is a loose open-leaued Artichoke, euer wallowish and vnpleasant: but the round large Artichoke, whose tops of leaues are red, being hard, firme, and as it were all of one piece, is of all other the best Artichoke, hath the deepest soale, the thickest leafe, and is the aptest to grow in anie soyle whatsoeuer: And therefore I would wish euerie man, as neere as he can, to make choice of these before anie other kind.

Choice of Artichokes.

If you would that the Artichoke should grow without prickes, you must rub it against a stone, and breake the end of the seed which is sharpe: or else put the seed after the manner of a graft in the root of a Lettuce which hath no rinde, and cut in small pieces, in such sort as that euerie piece may be grafted with a seed, and so planted. You shall haue Artichokes of good tast, if you let the seed steepe three dayes before you plant it, in the iuice of Roses or Lillies, or oyle of Bay, or of Lauander, or some other sweet and fragrant iuice, and then afterward drie it, and so plant or set it: Although, that as concerning the former oyles, there be some which are of a contrarie opinion, and doe thinke that the oyle doth spoyle the seed. 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 seed of an Artichoke, doe set it so. Artichokes will be sweet in tast, if before you set the seed, you steepe them in milke; which must be renewed and changed twice or thrice before that it sowre; or in honey: and then afterward to drie and set them.

Artichokes of a good smell.

Artichokes smelling like Bayes.

Sweet Artichokes.

Two sorts of beasts doe annoy the roots of Artichokes, Mice and Moules. The dung of Swine, or the ashes of the Fig-tree spread about the roots of the Artichoke, doe chase away Mice: and the like will fall out, if you wrap their roots about with wooll. Some, to driue away Rats that destroy the roots of Artichokes vnder the earth, pricke downe, halfe a foot deepe in the earth, certaine stickes of Elder tree, euerie one some foure ynches from the other; the smell of which Elder is so odious vnto those beasts, 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. Othersome put Thornes that are verie 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 boyled in some poysoned water and doe put them in the holes of this wicked cattell; for they taking the

the ſent thereof, they run thither preſently. As concerning Moules, we will ſpeake of the manner of killing them hereafter.

The root of Artichoke ſodden in Wine and drunke, is ſoueraigne 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 boyled in fleſh broth, and eaten with Salt, Pepper, and Galanga made in powder, helpeth the weakneſſe of the generatiue parts. The Italians eat them in the morning raw with bread and ſalt, whiles they be yet young and tender. *The vertues of the Artichoke.*

Chap. XV.

Of Sorrell and Burnet.

SOrrel 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 drie and wither. They feare not cold or froſt, neither yet aboundance of water: but they looke (eſpecially the Sorrell) that they may become the fairer, to be cut three or foure times a yeare.

All the ſorts of Sorrell, as well thoſe of the field as thoſe of the garden, haue this vertue, that being boyled with fleſh how old and hard ſoeuer it be, yet they make it tender and looſe the bodie. *The vertues of Sorrell.*

The leaues of Sorrell roſted in hot aſhes, haue a ſingular force to reſolue or to cauſe to Apoſtumate the ſwellings of the eyes: or as ſome Surgeons vſe, if you take the leaues of Sorrell, and lap them vp cloſe in a Burre-docke leafe, then lay it in the hot embers, and roſt it as you would roſt a Warde, then open it and applie it as hot as the patient is able to endure it to any impoſtumation or byle whatſoeuer about any part of a mans bodie, it will not onely in ſhort ſpace ripen and breake it, but alſo draw and heale it verie ſufficiently: it is alſo, being boyled in Poſſet-ale, a verie good cooler of the bloud, and a great comforter againſt inflamations which come by burning Feauers. A Cataplaſme made of the leaues of Sorrell, with twice as much old Swines-greaſe, all beaten and mingled together, and afterward put in the leafe of a Colewort vnder the hot aſhes, is ſoueraigne againſt cold Apoſtumes. The ſeed of Sorrel powdred and drunke with water or wine, doth aſſwage the paine of the bloudie flux. Sorrell ſteept in vinegar 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 fierceneſſe of the ague. *The bloudie flux.* *The plague.*

Burnet of the garden being an herbe that ſome vſe to put in their ſalades, whereof we haue here ſpoken, and which is alſo the ſame which the Latiniſts call *Sanguiſorba*, taken in drinke is good to reſtraine the monethly termes of women, and all other flux of the belly, but eſpecially ſuch as are of bloud: it is good alſo to dry 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 verie ſoueraigne preſeruatiue againſt dangerous diſeaſes, becauſe it hath a propertie verie 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 taſte of Millions: they are verie good to be put *The vertues of Burnet.*

in sallades made with Oyle, Salt, and Vinegar, according as we see them vsed euerie day.

Chap. XVI.

Of Harts-horne, Trickmadame, and Pearcestone.

Harts-horne. To cause harts-horne to thriue.

AS for Harts-horne and Trickmadame they haue no need 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. True it is, that if you would haue Harts-horne flourish and faire liking, you must cut it oft, lead it along vpon some roller, or cause it to go vpon foot by it selfe: for it delighteth to be so intreated, and vtterly refusing to grow otherwise than against the ground. Trickemadame doth nothing feare the cold, and doth grow principally vpon the old walls of vines, in a stonie and grauelly earth. These are put in Summer-sallades, though neither of them haue either tast or smell fit for the same. The Harts-horne is good to stay the flux of the bellie.

The vertues of harts-horne.

The vertues of Trickmadame.

Trickmadame stamped with Lettuce, 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.

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 seed, must let the hearbe grow to her perfection, and afterward to drie the seed as corne is dried.

The preserving of Sampier. Jaundise. Stone.

It may be preserued in salt and vinegar after the manner of purcelane, and then it is soueraigne for the difficultie of vrine, for the jaundise, and to breake the stone, to prouoke vvomens termes, and to stirre vp ones appetite, if it be vsed in the beginning of meat. For want of such as is pickled in vinegar, you may make the decoction of the leaues, roots, and seeds in Wine, for to vse in the same disease.

Chap. XVII.

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 yeare: for being once sowen, they afterward grow of themselues, and beare flowers in the Calends of euery moneth of the yere, aswel in Sommer as in Winter, for which cause the Italians call them the flower 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 many times, they wil beare most faire flowers and verie great, but yet euer more in Autumne than in the Spring.

Tusted and well thriuing Marigolds. The vertues of Marigolds.

The juice of the flowers of Marigolds drunke fasting, haue great force to prouoke the termes of vvomen: the fume or smoake of them taken through a funnell into the secret parts doth the like, and causeth the after-birth to come forth, and casteth young maides out of the Greene-sicknesse. The conserue of the same flowers haue the same vertue. The women of Italie as well to prouoke the termes, as to stay them, doe frie the juice and tender crops of this hearbe with the yolkes of Egges, and doe eat them. The verie same juice mingled with a little Wine or warme Vinegar, is a soueraigne remedie to asswage the extreame paines of the head and teeth, if one vse it in manner of a lotion. This juice drunke to the quantitie of an ounce, with the weight of a French-crowne of the powder of Earth-wormes rightly prepared, doth

doth helpe greatly against the jaundise. Some say that to eat oft of Marigold leaues doth make a good countenance: the distilled vvater of Marigold leaues being dropt into his eyes, or linnen clothes wet therein and applied vnto them, doth heale the rednesse of the eyes. The powder of the leaues thereof dried, and put in the hollow of the tooth doth cure the aking of the same. The juice of the flowers of Marigolds drunke to the quantitie of two ounces in the beginning of a pestilentiall ague, doth heale the plague, so that the sicke after he hath drunke this juice, doe presently lye downe, and be made sweat, being throughly couered in his bed: it doth cure also the jaundise, and beating of the heart. The conserue of the flowers of Marigolds doth the like. To drinke halfe an houre before the comming of the fit of a quartaine ague about three ounces of vvhite vvine, vvherein haue beene steept seuen seeds of Marigolds, and to go ouer this drinke for diuers mornings together, is a soueraigne medicine against a quartaine ague.

Chap. XVIII.

Of Beets and Blites, white and red.

Beets, as well the vvhite as the blacke and red, vvhich is called Bette and 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 end that there may alwaies be in a readinesse both old and young, and for to gather seed which may endure good three yeares. And for this cause you must take them vp and plant them againe, when they haue put forth fiue leaues, and put vnto the roots a little new dung, and afterward lighten and raise their earth, and free them quite from vveeds: they are apt and easie ynough 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, vntil the third yeare after they be sowen: in respect whereof, I could aduise the gardiner not to gather any seeds of the beets to sow, but such as the beet shall bring forth the third yeare: for of such seed there grow verie faire and goodly beets. *Beets.* *A speciall properie of the beet.*

If you would make choyce of faire beets, chuse rather the white than either the blacke or red, as being the fairest and tenderest: but to haue such as shall be verie great and vvhite, you must couer the root 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.*

Beets eaten in pottage doe loose the bellie: the juice of beets drawne vp into the nose, doth purge the braine: the same juice 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 vinegar. *The vertues of the beets.* *For to make vinegar quickly.*

Blites are sowne 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 yeare 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 boyled the roots and leaues, killeth lice and nits: their leaues roasted amongst ashes or boyled, doe heale burnings: the first boyling of Blites with the gall of an Oxe, and the Oyle 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.*

Chap. XIX.

Of Arrach and Spinage.

THe hearbe Arrach (in Latine called *Atriplex*) aswell the white and red, as the greene, doe naturally grow in grounds manured with horsedung, and in such place as where there hath beets growne at other times. They become red in the same sort that beets doe in a fat and well dunged ground. But they are sowne in Februarie, March, and Aprill: and they would be sowne thin and not thicke, and oftentimes watered. Some sow them in December to gather them in Winter. They will not be remoued, but rather wed, watered, dunged with good dung, often cut and pruned, and that with an yron toole, that so they may not spend themselues in turning all their substance into leaues. But specially after the time that the seed is scattered vpon the earth, it must presently be couered with earth, and they must be sowne as cleare as may be, that so they may grow and come faire and goodly ones. In lesse than fifteene daies they be readie to eat. The Italians vse to make a kind of Tart of Arraches: They chop small the leaues and stampe them with cheese, fresh butter, and the yolkes of Egges: afterward they put them in paste, and bake them in the ouen.

Spinage. Spinage (so called because 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 verie 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 end 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 euerie yeare, must at the first when he soweth them, see that the seed be a good, full, and well fed seed; for then for some yeares following, they will grow without being sowne againe, although the seed of the second yeare will be somewhat weake: for to keepe them from the frost, you must couer them with Walnut-tree-leaues, and that before mists or fogges doe fall in any manner of sort.

The vertues of Spinage. The inhabitants of Paris know well ynough how profitable Spinage is for to make meat of in Lent, which vse to make diuers sorts of dishes thereof for their banquets; as sometimes they frie them with butter in pots of earth: sometimes they preserue them at a small fire with butter in pots of earth: sometimes they make vvreathes of them, as also diuers other fashions: especially they make a most excellent boyled sallade thereof, by taking the greene leaues thereof, and boyling it in faire vvater till it be soft as pap, then take it from the fire and straine it, and vvith the backes of your chopping-knifes, chop it so small as possibly you can, then put it into a verie cleane sweet pipkin or skeller, with a good quantitie of sweet butter and currants verie clean vvasht, and so boyle it ouer againe a good space, then with vinegar and sugar, season it according to the tast vvhich pleaseth you best, and so serue it vp vpon syppets with hard egges, or otherwise as you please, for it is of all sallads the best. The vse of Spinage is good for them vvhich haue some impediment in breathing or speaking, or vvhich are much troubled vvith the cough, especially if such a one in the morning do sup the broth of Spinage boyled vvith fresh butter, or oyle of sweet Almonds, they loosen the bellie: their juice is good against the stinging of Scorpions and Spiders, whether you drinke it, or lay it vpon outwardly.

Chap.

Chap. XX.

Of Borage and Bugloſſe.

BOrage and Bugloſſe being hearbes much differing in leaues and flowers, are alike notwithſtanding in their roots, ſeeds, and vertues, ſeruing to put in the pottage whiles their leaues are tender, and the flowers are vſed in Salades. They are ſowne in Auguſt or September for Winter vſe, and in Aprill for Summer: they may be remoued at anie time: And as for the ſeed, it muſt be gathered halfe ripe, that ſo it may not leape out of his coat. And of this Borage and Bugloſſe you ſhall ſow but a verie ſmall quantitie: for it is ſo apt and eaſie of growth, the ſeed ſo ſoone ripe, and ſo apt to ſhed, that albeit your vigilance be verie great, yet you ſhall find it will in ſhort ſpace ſoone ſpread and ouer-runne much ground: neither, where it is once ſowne, can it, but with great difficultie, euer after be rooted out.

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 vitall ſpirits. The broth wherein Bugloſſe ſhall haue beene boyled, doth looſe the bellie. The root that beareth three ſtalkes, ſtamped with the ſeed and boyled in wine, doth ſerue to be taken againſt tertian Agues. The wine wherein the leaues of Bugloſſe ſhall haue beene ſteept, taketh away all ſadneſſe. The iuice of Bugloſſe, Leekes, and Parſley, mixt with Wine, or oyle of ſweet Almonds, is a ſoueraignemedicine to cauſe the after-birth of women to fall away. The iuice of Borage and Bugloſſe drunken, is a preſeruatiue againſt poyſon, 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 colds of quartaines. The water diſtilled is ſingular againſt the dotages happening in Feauers, as alſo againſt the inflamation of the eyes. *The vertue of Bugloſſe.*

Chap. XXI.

Of Leekes both great and ſmall.

LEekes, as well thoſe that are long headed, as thoſe that are round, doe not require ſo rich and fat a ground as the hearbes going before, and they may be ſowne at all times, if it were not for the gathering of the ſeed: for which cauſe they muſt be ſowne in December, Ianuarie, and Februarie, and there it will be ripe after March and mid Auguſt, and that if from the time that they are ſowne, you goe and tread vpon the Beds, and water them not but foure daies after. *Leekes.*

They are wont to be remoued when they grow of ſeed, and that either into ridges, euerie one being ſet foure ynches from another, and then there is nothing taken from them but the ends and tops of the leaues, or into a hole made with a ſticke, and then the roots muſt be made cleane and cropped off, as alſo manie 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 anie caſe you muſt weed, water, and dung them manie times, eſpecially the round headed ones. Furthermore, to make them verie thicke, put the ſeed of a Cucumber and of Nauets in a Reed, or in Boxe boared

through,

through, 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 Leekes, you must put so much of their seed as you can hold 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 euerie morning the leaues of Leekes with oyle, to haue a good voice: although that Leekes be noysome to the stomacke, as being verie windie, except they be boyled 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 applyed vnto the swolne Hemorrhoids, doth verie much good both against the swelling and paine of them. The leaues of Leekes stamped with Honey, and applyed in forme of a Cataplasme vnto the stingings of Spiders, or vpon the biting of venimous Beasts, are soueraigne remedies for the same. The iuice of Leekes mixt with vineger and rubbed vpon the browes, stayeth 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 spitting 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 reneweth it, and returneth it to his former goodnesse. The iuice of Leekes, or Leekes themselues boyled in oyle, take away the paine and wormes in the eares. Leekes roasted vnder embers, and eaten, is singular good against the poyson of Toad-stooles, and to preserue from drunkennesse, or else to driue it away, being alreadie possessed. If you boyle Leekes with Earth-wormes in Oyle vnto the consumption of the third part, and afterward straine out this Oyle, it will be singular good for the vlcers and noise in the eares.

Poyson. Bleeding at the nose. Difficultie of making water. For deliuerance in child-birth. Spitting of bloud.

Small Leeks.

Small Leekes must be sowne in the Spring, at such time as other hearbs are sowne: they make a faire shew because of their thinne and little leaues, and because also they keepe greene all the yeare long: they may seeme to be the same with Chibols and Cyues, which are wont to be vsed in Salads to helpe to temper the coolenesse of other hearbes vsed in Salads, because the Chibols and Cyues haue no head, but onely a long stalke like vnto Leekes.

Chap. XXII.

Of Purcelane.

PVrcelane loueth to be sowne in Februarie, March, Aprill, May, and Iune, but not at anie other time, for it cannot abide the cold. It commeth in great aboundance vpon Beds mixt well with old dung, or in a ground that is verie fat of it selfe, especially if it be sowne amongst Coleworts, Onions, and Leekes: and after it hath once taken with the ground, it will not faile anie yeare 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 hearbes, but not thicke, for then it could not well spread it selfe abroad.

The vertues of Purcelane.

Purcelane eaten doth cure the roughnesse and astonishment of the teeth, stayeth spitting of bloud, and quencheth the heat of the reines, notwithstanding that this hearbe is hard to digest, and nourisheth but a little: being applyed vnto the browes, it appeaseth the head-ach, and being layd vpon the nauell, it killeth the wormes in children. The decoction of the leaues thereof, or the seed, or the water distilled, is a soueraigne remedie against the Bloudie flux and the Wormes in children. A lease of

Bloudie flux. Wormes.

of Purcelane put vpon the tongue, assuageth thirst. A Cataplasme made of Purcelane and Barly meale, applyed vnto the liuer and flanke, worketh a maruellous effect against burning Agues. A Liniment made with Honey, and the powder of the root of Purcelane dried, healeth the chaps of the lips and hands. *Drought. Burning agues. Chaps in the lips.*

This Purcelane is an excellent Salad, and by a cooling operation which it hath keepeth the bloud in a most excellent temper. You preserue it all the yeare, by boyling it first in faire water, then drayning the water from it, spread it vpon a faire table, and cast good store of salt amongst it: then when it is throughly cold, pot it vp in cleane sweet pots of Earth, and poure vpon it either a good strong Brine, or Vineger and Salt mixt together, till the Purcelane be cleane couered: or if you feare the ouer-saltnesse of it, then you need but onely make a well-tasted pickle, such as you put to Oliues, and with it couer the Purcelane, then close the pot vp close till you haue cause to vse it: And if at anie time you find the pickle or brine to shrinke away from the hearbes, and leaue them drie, you must immediately renew it, and couer it all ouer againe, for it is apt to putrifie, and nothing bringeth it more sooner thereunto than the want of moisture: Therefore you must haue care euer once in three or foure dayes to open your pots, and to mend what you shall find amisse in them: and if you find anie hoarinesse cleauing vnto the pots sides, you must cleanse that away also. *To preserue Purcelane.*

Chap. XXIII.

Of Onions, Chibols, and Chyues.

FOr the most part, Onions (so called of the French, because they haue but onely one white root, like to a pearle; which the Latines call *Vnio*) whether they be white, red, or round, would be sowne in Ianuarie, Februarie, and March, in a fat ground, well 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 remoued in Aprill all along, well weeded, and often laboured, to cause them to grow great and thicke: and they must be kept from cold and freezing winds. In them we must obserue a nature contrarie vnto that of other Hearbes and Plants, being of greater force and vertue in the encrease of the Moone than 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 seed, 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 wind doe not bow or breake them downe. They must be gathered in the old of the Moone, in faire and drie weather, when the leaues begin to drie, and the seed to grow blacke, for then you must pull vp the whole stalkes, and drie them in the Sunne: And it is said, that if they be sowne and planted when the Moone is vnder the earth, they tast 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 sowne 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 anie 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 straw, so as they may not touch one another. Whó so would make choice of Onions, must know, that the round and white ones are a great deale better than those *To keepe Onions from rotting. To make choice of Onions.*

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 grow at Fertlonion, a ſmall village neere vnto Eſtamps, for it hath his name vpon that occaſion.

The vertues of Onions.

The Onion, though it be the Countrey mans meat, is better to vſe than to taſt: for he that eateth euerie day tender Onions, with Honey, to his breakfaſt, ſhall liue the more healthfull, ſo that they be not too new: for the drie are more healthfull than the greene; the boyled, than the raw; the preſerued, than the drie: wherefore the drie muſt be choſen to vſe in Salads, fried Meats, Gallymawfries, baked Meats, Sawces, Beane pottage, and other vſes.

Dropſie.

Kibed heeles.

The iuice of Onions cauſeth haire to grow againe, cleanſeth filthie eares, and ſuch as runne with mattar; taketh away white ſpots, as well out of the face, as from the reſt of the bodie: It cureth the Dropſie with the iuice of Fennell, if it be but beginning: it purgeth the braine through the noſthrils: mingled with Hennes greaſe it dryeth vp the Kibes: applyed with a linnen cloth vnto burnings, it eaſeth and taketh away the paine: being mixt with ſtrong vineger, it ſtayeth bleeding at the noſe, if it be dropt and put into the noſe with a feather.

An Onion roſted vpon hot coales, and eaten with Sugar, Oyle, and a little Vineger, doth cure the Cough, and is good for them that are ſtopped or ſtuffed in their Lungs, and ſuch as are ſhort breathed. Take away the heart of an Onion, fill it with Cummin ſeed powdred, ſtop the hole, and roſt the Onion thus prepared vnder hot aſhes, when it is roſted, ſtrayne it out, this iuice is ſingular good for the noyſes and deafeneſſe of the eares, being dropped into them. The thicke rinde of the Onion burned or roſted vnder hot aſhes, aſſuageth old Head-ach and Megrams, if you put a little morſell, moiſtened or beſprinkled with Oyle of Roſes and Bayes, within the eare of that ſide of the head that aketh.

The biting of a mad dogge.

Red ſpots.

An Onion ſtamped with freſh Butter, eaſeth the paines of the Hemorrhoids: ſtamped with Honey and Salt, it is a ſoueraigne remedie for the biting of a mad dogge, and other ſuch like beaſts: mingled with Hennes greaſe, it taketh away the red and blew ſpots of the face: boyled in Wine, or in Water, and afterward ſtamped and fried in common Oyle, and applyed in forme of a Cataplaſme vnto the Nauell, it aſſuageth the throwes of Women newly brought in bed: roſted vpon hot coales, and mixed with Leauen and Oyle of Lillies, it ripeneth Impoſtumes. Take away the heart of the Onion, fill the hollow place with Treacle or Mithridate, diſſolued and beat with the iuice of Citrons, ſtoppe vp the hole againe with the Cap or vpper Cruſt which you cut off, roſt all together vnder the hot aſhes, and that ſo long, as vntill all be well incorporated and drencht in, afterward ſtrayne the Onion ſo roſted, and giue that which ſhall be ſtrayned to drinke to him that is infected with the Plague, and cauſe him by and by to lye downe, and to be well couered, to the end that he may ſweat. This Medicine hath not his match againſt the Plague, prouided that the ſweat breake forth by and by.

As for Chibols and Chyues, they come more neere vnto the nature of Onions (as by the ſmell one may well perceiue) than 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 ſowne in the Spring, as other hearbes, in the ſame ground with the Onion: They are verie pleaſant in Salads, to temper the coldneſſe of other cold hearbes.

Chap. XXIIII.

Of 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 Countrey of Beaux, to the end that the water may not destroy them in Winter: For this hearbe desireth a drie ground, and but a little moist, verie white, and not much dunged, or verie fat. When they shall haue put forth three leaues, you must weed them as oft as you can, for so they will become fairer, and their seed 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 feet before it put forth his stalke: for by this meanes the iuice will returne into the head. It groweth likewise of Seed, but more slowly, for it hath no better a head for the first yeare than a Leeke, the second yeare it beginneth to be better headed and more like it selfe, but is not perfect and absolute vntill the third yeare. If you sow 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 sow in the new or growth of the Moone. Likewise it will haue a sweet sauour, if when you sow it you set in the middest thereof the kernels of Oliues: as likewise, if in planting it you set by the side thereof a Cloue, ioyned verie 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 sweet Wine a day before that you sow it: And if you steepe it in Milke two dayes before you sowe it, it will become both greater and better.

Garlicke.

Sweet Garlicke.

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 well, and when it is gathered, to lay it in the Sunne, 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 would continue but a while. It is true, that if you mean 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 kind of keeping doth make it barren and not fit to grow anie more.

How to keepe Garlicke.

Garlicke eaten, bringeth a verie vnpleasant smell vnto the mouth: and for the taking away of the same, you must eat a raw Beane by and by after, or the ribbe of a Beet 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 thereof in your mouth, and yet your breath shall not smell anie thing ill.

The vertues of Garlicke.

The taste of Garlicke.

Garlicke eaten fasting, is the Countrey mans Treacle in the time of the Plague, and other dangerous diseases, as also against all manner of Venime and Poyson. It is true that it causeth thirst and heat throughout the bodie, and head-ach when it is oft vsed: but all these inconueniences will be easily corrected, if you eate some Smallage or Parsley presently after. Verie manie men, but especially the people of

The Plague.

of Aquitaine, in the beginning of the Spring time, namely, the first day of May, doe eat euerie morning Garlicke with fresh butter: by this meanes they hope to continue sound and strong all the yeare.

The biting of a mad Dogge. Garlicke applyed in forme of a Cataplasme vnto the stingings of Serpents, or biting of a mad Dogge, is a soueraigne medicine against the same. A Liniment made of Garlicke, Salt, and Vineger, killeth Nits and Lice.

Nits. Lice. The decoction of Garlicke not bruised, giuen in Clysters, or applyed vnto the bellie in manner of a fomentation, assuageth the paine of the Colicke, and expelleth wind.

Colicke.

Cough. Against an old Cough, comming of a cold cause, it is verie good to rub the soles of the feet, the backe bone, and wrists of the hands with an Oyntment or Liniment made of three Garlicke heads, well pownd and beaten in Swines Seame.

Tooth-ach. Against the paine of the Teeth, comming of a cold cause, there is nothing better than to hold in the mouth Vineger, or the decoction of Garlicke, or to apply vnto the aking tooth three cloues of Garlicke stamped in Vineger. For the killing of Wormes in children, it is good to giue them to eat Garlicke, with fresh Butter, or else to make a Cataplasme thereof, to lay vpon the Stomacke.

Wormes.

Difficultie of Vrine. They which can scarce or hardly make their Water, or are subiect vnto the Stone, receiue great comfort by eating of Garlicke. To keepe Birds from hurting of young Fruit, you must hang at the boughes of those Trees some quantitie of Garlicke.

Birds.

Chap. XXV.

Of Scalions.

Scalions. Calions are like vnto Garlicke in tast and smell, but in stalke and fashion the leaues resemble Onions, saue onely that out of their head there grow manie hulles or huskes, which bring forth manie round little leaues. They thriue and grow better when they be set than when they be sowne: for when they be sowne, there is no great hope of their comming to any faireness before the second yeare. They may be planted from the first day of Nouember vnto the moneth of Februarie, to haue the fruit thereof the next Spring: and they are planted as Garlicke: But in the meane time you must gather them before the March Violets doe flower: for if one vse them not before that they be flowred, they will fall away, and become but sillie ones. They are knowne to be ripe, if their leaues begin to drie away below. For to cause them to haue great and thicke heads, you must put brickes round about their rootes, as hath beene said of Leekes.

The vertues of Scalions. As concerning the vse of Scalions, there is no great helpe or profit to be hoped for, or expected, except of such as are giuen more to their pleasure than to their health: for the Scalion 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 somewhat troublesome to the stomacke, because of their more sharpe and subtle tast.

CHAP. XXVI.

Of Parsley.

PArsley craueth no great labour, but loueth a stonie and sandie ground, for which cause it is called Parsley: againe, it craueth not anie store of manure; wherefore it will be good to sow it vnder Arbors. It desireth aboue all things to be well watred: and if it so fall out, as that it be sowne or planted neere vnto anie Fountaine or Riuer, it groweth verie faire, and in great quantitie. And if anie be desirous that it should haue large leaues, hee must put into a faire Linnen Cloth so much seed 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 Goats trottle a quantitie of Parsley seed, 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 fall 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 sowne, if you draw a Rowler vpon it so soone as it beginneth to grow. It is a good time to sow it from mid May vntill the Sunne be risen to his highest point in the Heauens, for it somewhat craueth the heat. The seed thereof that is but a yeare old, is nothing worth: for looke how much elder the seed is, by so much it is the better, and endureth a long time vnsowne: in such sort, as that it will not be needfull to sow or plant it of fiue yeares; although, when it is sowne, it groweth not vnder the space of threescore daies. Notwithstanding, to cause it to grow, and put more speedily out of the earth, it behoueth that the seed be steeped in vineger some certaine time, and after sowne in a well toyled ground, and filled or mixed with one halfe of the ashes of Beane stalkes: and after it is sowne, it must be oft watered, and sleightly, with a little Aqua vitæ: and by and by after the watering, to lay aloft it a piece of Cloth, that the heat thereof may not be spent, and breath away, and by this meanes it will grow vp within a few houres: and then you must take off the Cloth couering it, and water it oft, and by this meanes it will haue both a high stalke and great leaues. *Parsley.*

A Cataplasme made of the leaues of Parsley, with the crummes of White bread, doth heale a Tettar 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, drawne 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 companie much, and haue an ill breath, must not goe vnprouided of good store of fresh Parsley to chew or hold in their mouthes. The decoction of the roots 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, applyed in manner of a fomentation vpon the pained parts: It seruieth 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 Parsley cast vpon the water of Fish-ponds, doe recreate and reioyce the sicke and diseased Fish. *The vertues of Parsley. Deliuerie of women in their trauell. A stinking breath. To make water. The Colicke. Paine of the reines.*

Chap. XXVII.

Of Rocket and Tarragon.

Rocket.

ROcket being an hearbe verie vsuall in Salads, and good to temper the coldnesse of Lettuces, may be sowne as well in Winter as in Summer: for it feareth not cold, nor other iniurie of the ayre; neither doth it require anie great labour: it loueth notwithstanding to be wed and manured in a grauellie 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 Salads the leaues of Lettuce, seeing that the one of these doth notably temper the other. It is good notwithstanding to prouoke vrine, applyed 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: Also Rocket being boyled and mixed with Sugar, doth take away the Cough in little children.

The force of Rocket.

Iaundise and hardnesse of the spleene.

Tarragon.

Tarragon is made of Linseed prickt in manie 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 foot, or somewhat more, you must take the slippes or branches and set them againe in the same earth, and water them often.

Tarragon hath the same force and vertue that Rocket hath, and is not to be eaten alone, but with Lettuces and such like hearbes.

Chap. XXVIII.

Of Smallage, Cheruile, Costmarie, and Auens.

Smallage.

SMallage must be sowne 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 sowne, if it be not all pulled vp by the roots, but that there be but one stalke left from yeare to yeare to seed, it will continue for euer: and it hath not anie great need of being weeded. The good time to sow it, is from the end of Februarie vnto the first day of September. It hath the like vertue that Parsley hath, not to eat, but for Physicke. It is good also for all blew stroakes, and bloud that is settled by reason of anie kind of blow. The oyle thereof is likewise good for manie diseases, and especially for the rawnesse 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 sicknesse, doe prescribe the roots of Smallage and Parsley. I haue tried by experience oftentimes, that the leaues of Smallage, chewed raw, doe prouoke the termes of women.

Cheruile.

Cheruile, called in Latine *Cerefolium*, loueth to be sowne 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 often watered. Cheruile doth stirre vp the stomacke, and is verie good to prouoke vrine, and purge the bloud.

The vertues of Cheruile.

Costmarie and Auens.

Costmarie and Auens are verie pleasant hearbes to giue a sauour like Spice in Pottage and Salads: They would be sowne in May and Aprill, and remoued in Nouember. Both of them haue the taste of Pepper and Cloues, and therefore cannot

cannot but be good to comfort the ſtomacke. Some, to prouoke appetite, make a greene ſawce of Sorrell for to eat with meat. Phyſicions doe greatly eſteeme of the decoction of Coſtmarie againſt the Swimming diſeaſe, Aſtoniſhments, falling Sickneſſe, obſtructions of the Lungs, Dropſies, and Iaundiſe; as alſo for the Colicke, Stone, difficultie to make Water, ſtaying of the Termes, for quicke deliuerie in Child-birth, and to bring downe the after-birth.

Chap. XXIX.

Of Aſparagus.

THe hearbe 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 ſow them in the Spring at the new of the Moone: but it is better to ſet the rootes, which ſpread and encreaſe better and ſooner than the ſeeds: whether they be ſowne of ſeedes, or ſet of rootes, it muſt be done in furrowes three ynches deepe, and a fathome ouer on euerie ſide, ſtanding one from another a good long foot: put into euerie furrow two or three ſeeds, euerie one off from another ſome nine ynches, about fortie daies after the ſeeds doe gather together, and ioyne 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 yron Sieue, that ſo the Sunne may pierce the deeper, and draw the Aſparagus 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 Sinkes and Priuies, and the duſt which falleth out of Wooll when it is beaten: and againe, vpon this the ſeeds and droſſe of the Vine-preſſe and Grapes. You muſt renew their ground oftentimes in Februarie, and caſt new dung vpon it: you muſt doe the like alſo the ſecond yeare in Februarie or March, and likewiſe euerie yeare in October. It is true that they muſt be remoued the ſecond or third yeare, and neuer to cut them vntill the third yeare, and then in the moneth of May. In ſtead of remouing 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, (in as much as Aſparagus would neuer be remoued out of their place, except it be when they grow too thicke together:) For doing ſo two or three yeares 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 trimme 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 mixed 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 manner as it was found there. Howſoeuer it be, the yeare 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 grow faire and aboundantly, you muſt couer the earth of the trenches with beaſts hornes; or elſe ſow in the furrowes where you ſhall ſet them, the powder of the hornes of Weathers, or wild Rammes, or ſome others, and afterward you ſhall water them. And this is the cauſe that maketh them grow naturally in the Medowes. Others there are which ſay (though it be a wonderfull thing) that there muſt nothing be done to the hornes, but onely bored through, and to hide them in good ground, and that of them will breed and grow Aſparagus. And to cauſe Aſparagus to ſprout and bring foorth often, you muſt rake and weed and digge about them often,

The way to haue good ſtore of Aſparagus.

Aſparagus may grow of a Sheepes horne.

opening their roots, after that you haue gathered the fruit, and straw vpon them the powder of beasts hornes: for the plant being thus handled, will beare his fruit otherwise.

The vertues of Asparagus.

Asparagus is a delicate fruit, and wholesome for euerie bodie, and especially when it is thicke, tender, sweet, and not verie much boyled: 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 applyed to the tooth-ach, assuageth the paine: being drie, and thrust into the teeth, it rooteth them out: put into a decoction, and drunke oftentimes, it breaketh the stone, it maketh a good colour in the face, and a sweet smell in all the bodie, excepted onely that it maketh the vrine strong and stinking.

Chap. XXX.

Of Garden and Water-Cresses.

Garden Water-Cresses.

Garden-Cresses, so called because they grow at all times, and are of great nourishment, as also Water-Cresses, doe loue moist places, and the little Brookes rising from Springs and other little Riuers: wherefore they aske no other labour in Gardens, but to be planted neere to Lettuces, that they may grow well, and to be watered euerie day, hauing water alwaies at their foot.

The vertues of Water and Garden-Cresses.

Both of them are verie good in Salads of Lettuce, 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 mixed with Leauen, it killeth the Wormes. The iuice thereof, drunke with the iuice of Mints and Wine, doth the like. The iuice of Water-Cresses dropped into the eare, doth heale the paine of the teeth, comming of a cold cause. The seed of Cresses chewed and held in the mouth, is good against the palsie of the Tongue. In the palsies of other parts, there must be applyed vnto the said parts bagges full of the seed of the said Cresses, hauing boyled it first in Wine. The same remedie is good also for the Colicke.

Tooth-ach. Palsie. 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 Mugwort vpon a hot fire-panne, sprinkling them with red wine, and applying them vnto the bellie. They are verie singular against the paines of the mother after Child-birth, if with the flowers of Camomill, and the leaues of Mugwort, all chopped small and incorporated with foure yolkes of egges, you frie them all in a frying-panne with the oyle of Lillies, and applie it hot vnto the bellie and nauell. The iuice thereof rubbed about the cods, stayeth the flux of the seed in the night time. A Cataplasme made of the leaues of Water-Cresses, of the leaues and rootes of Turneps, and of the rootes of Parsley, all chopped small, and fried with pure wine and butter, and applyed vnto the stomacke and the groine, causeth the vrine that hath beene long kept, to passe away and auoid.

Chap.

Chap. XXXI.

Of Saffron.

AS concerning Saffron (as shall be said hereafter) it loueth an indifferent soyle, not strong, nor dunged, but yet well eared, lying vpon the Sunne, and well digged: and it commeth verie well in the place where Onions haue growne. It loueth not water, and standeth in awe of the Moule and Mice: It groweth better, the head being set, than the seed being sowne: for indeed it is not vsed to be sowne, but the heads of it onely 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 ynches deepe. It groweth the better, if it be a little footed vpon. It flowreth euerie yeare 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 yeares: and then if it be remoued into some other place, it will be able to doe further good. It is true that it springeth forth manie cloues and kernels, which must be taken away euerie three yeare, or else the root would be choaked and smothered. Some doe set it (as being the best time) from after mid August vnto mid September, and cast at the roots of it the drosse of Grapes as it commeth from the Presse, and leaue it in the earth two or three yeares: and euerie yeare, in Aprill and May, the dried part of the hearbe is tyed vp and troden into the earth some two ynches deepe, without hurting of the root: and after you haue cleansed 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 knowne to be good, if it be fat: if being holden in your hand, it make a noyse: and if being put into anie liquor, it dissolue: if being handled and held vp to the face, it procure a certaine kind of biting or pricking vnto the eyes: if it be of a golden colour: if it dye 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 heart: it keepeth from being drunke, and healeth the bitings of Serpents and Spiders: if it be taken inwardly, or applyed outwardly, in great quantitie, it procureth swimming and paine in the head, and bringeth a foggie mist ouer the eyes.

Chap. XXXII.

Of Nauets great and small.

NApes and Nauets (called of the Latines *Napi*) are two diuers sorts of one kind, 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 sowne after one fashion in a well-digged ground, and withall well enriched, and made verie good, that so they may goe downe a good way, and

worke themselues deepe into the ground, or else in a ground which is intended to be made fertile, or vpon Stubbles which haue beene newly plowed, or betwixt Millet and Pannicke: The seed is vsed to be mingled with earth broken into small powder, that so it may sow the more clearely, not falling manie together: it must not be aboue three yeares old; for if it be elder, it bringeth forth Coleworts. And if the seed haue beene steeped and moistened in milke or sweet wine, or honied water, two or three daies before it be sowne, 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 sowne in August: When you goe about to sow them, you must looke that the earth haue beene newly watered with raine, for so they will grow better. And aboue all things it must be looked vnto, that they be not sowne in a shadowed ground, for the shade is altogether contrarie vnto them, though the earth be good and fertile. They are gathered in Nouember, & 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 vnto Paris, which gather great store of them euerie yeare to sell at Paris.

The gathering and keeping of Napes.

This fruit is windie, and begetteth wormes in young children by their sweetnesse, but they must be eaten with Mustard. It is true that their seed doth resist venime, and there it is put into Treacle: it likewise killeth the Wormes, being mingled with the iuice of Oranges or Limons: and it driueth forth the small Pocks and Measels 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 Ægyptians make a verie good Oyle of it.

The vertues of Napes.

Chap. XXXIII.

Of Turneps.

Turneps.

TVrneps (called in Latine *Rapa*) are of two sorts, the round and the long, and they differ not much from Napes and Nauets, saue onely in greatnesse and tast: For Turneps are a great deale bigger, and of a more pleasant taste, than the Napes: for the truth 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 excellent a meat than Turneps: and for the same cause they are so industrious in sowing and dressing of them, as being that commoditie and encrease of the earth vnto them, which is as well, yea better beloued, and more necessarie, than anie Corne or Graine: for they feed themselues and their Cattell with the leaues, great and small stalkes, tops and roots of Turneps; insomuch, as that they complaine of a Famine, when in their Countrey their Turneps are frozen in the ground, or haue receiued some 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 grow, is (as it were) like vnto that of the Napes. It is true, that they would be sowne verie thicke, and not thinne, for else they will proue but verie small and little, and it would be rather in September than at anie other time, in a moist ground, well manured, and diligently corrected of such faults as it may haue, because they reioyce and proue a great deale the fairer, and of a better tast, in cold, snowie, and foggie weather, than they doe in faire: which is the onely cause that in the Countrey of Sauoy and Limosin they doe grow more sweet, tender, faire, and great, because of the Fogs, Snowes, and cold Seasons that they suffer much in those places. If they be sowne in the Spring time, there must care be had, that their leaues be not eaten with wormes

and

and such other vermine: 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 seed some day before it be sowen, or else of the soot of the furnace or chimney: or else to steepe it in the juice of housleeke, and afterward to sprinkle it ouer well with water, that so it may receiue some moisture: and then to sow it the day after it hath beene so steeped.

It is one of the wonders of nature, that of so small a seed there should grow so great a fruit, as should sometime weigh thirtie or fortie pound. There must speciall care be had that the seed be not aboue three yeares old: for if it be it will bring forth coleworts in steed of turneps. To haue them faire and great, after they become once so great as a finger, they must be remoued a good distance one from another: afterward they must be couered with earth, and troden downe verie hard: for by this course the juice which should haue beene spent in putting forth of leaues and stalke, will turne to the making of the root 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.

Turnep seed is verie 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 haue the gout withall. The Cutlers and Armorers doe constantly affirme, that kniues, daggers, and swords, quenched three or foure times, when they are in forging, in the juice of turneps, mixt with equall quantitie of the water or juice pressed out of earth wormes bruised, doth make their edge so hard, as that therewith you may cut yron as easily as any Lead.

The vertues of turneps.

Chap. XXXIIII.

Of Radishes.

Radishes are properly the same which is called in Latine *Raphanus*, in Italie *Rauanels*, and at Paris *Raues*, they are vsed in manner of a salade with meat for to stirre vp the appetite. They grow better when they are planted, than when they are sowen, and there are two seasons to set or sow them in, that is to say, in Februarie in the waine 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 root, 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 root, the leaues whereof you must tread and trample downe, that so the root may grow the greater, which otherwise would runne vp all into leaues: likewise they must be gathered within two or three moneths (otherwise they wil quickly go to seed) and put them in the ground vnder sand or grauell after you haue cut off their leaues. The manner 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 pretty great ones, to couer them againe with earth, and to take off their leaues from them, for so they will become more sweet and pleasant. You must not plant or sow them about vines or arbours: for they are great enemies vnto vines, as making them to run out their juice, when they are neighbours to it, by reason of their acrimonie and sharpenesse. Some likewise say, that radishes doe keepe away drunkennesse, because they greatly weaken the force of Wine. To haue sweet radishes, their seed 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 bitternesse: likewise we ordinarily see that they are eaten with salt and vinegar. Their goodnesse is knowne by their leaues, which by how much they are the gentler in handling, by so much is the root the tenderer and more pleasant to eat. The rinde doth likewise shew the same: for the thinner it is, so much the more delightsome are the radishes.

Radishes. *Radishes contrarie to wine.* *Sweet radishes.* *Good radishes.*

Physiti-

Physitians doe 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 eat some certaine slips of Hyssope or Thyme, or Organie: or if they be eaten with oyle: and againe, in stead of this one discommoditie, they bring a thousand profits for the health of mankind. The roots of radishes being new, chopt small, and sprinkled with white wine that is neat and warmed in a frying-panne, and applied vnto the stomach, causeth a man to pisse aboundantly the water which he could not auoid of a long time: the juice of the same root drunke to the quantity 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 sweet Cassia, and two drams of the juice 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. The juice of the root of radishes, mixt with oyle 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 jaundise. The leaues boyled in pottage in stead of coleworts, do take away the obstructions of the liuer & spleene. Their seed bruised and strayned with white Wine, is soueraigne against all sorts of poysons and other dangerous diseases. The roots eaten fasting do preserue and keepe a man from venime and poyson. Some hold it for a certaine truth, that turneps steept in stinking and ill-sauouring wine, doth take away altogether the ill tast 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. 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. 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 roots 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 boyled, will become better, and that they may not be eaten in the later end but at the beginning of meat, whatsoeuer it pleaseth *Dioscorides* to say, that so they may goe presently out of the stomach, and nothing hinder the digestion of the rest of the meat.

Trauell of child-birth.

Noise of the eares.

The ill taste of wine.

Spots.

Grauell and the stone.

Store of milke in Nurses.

Chap. XXXV.

Of Parsneps, Mypes, Carrets, and Skirworts.

Parsnept. Mypes. Carrets. Skirworts.

PArsneps, Mypes, Carrets, and Skirworts, are sowen all after one fashion, in a ground well digged, freed from stones, clensed and scoured from all weeds, and vnprofitable roots, being also manured and tilled well before: they may not be sowen thicke, that so they may grow the longer and thicker. They must be watered as soone as they be sowen, and if the time proue 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 sow 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 yeare 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

Parsneps may be kept a whole yeare 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.

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 legges, are verie profitable for them. *The vertues.*

Chap. XXXVI.

Of Mustard and Poppie.

SEnuie or Mustard delighteth in a fat ground, and is sowen with moulds, 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 yeare, but the newer that it is, so much the better it is, either to sow or eat. 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 old and not worth any thing, either to sow or eat. That which is intended to be kept to eat, shall be good to be remoued when it is growing: for so it will yeeld a greater and fairer top: but that which is intended to vse for seed, must not be remoued or haue his place and habitation changed. *The goodnesse 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 of the said seed, hauing beene first boyled in Wine. The powder thereof cast into the nosthrils 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 oyle of Mustard is soueraigne against the ach of the hips, and weaknesse of the sinews. Mustard-seed brayed and put into sweet wine, preserueth the same in his sweetnesse, so that it shal not loose it, the reason is, because it keepeth it from taking of a heat: the same made in powder and mixt with vinegar, doth heale the stingings of serpents and scorpions: being drunke, it ouercommeth the venime of Mushromes that haue beene eaten: mingled with the vrine of a young child, and rubbed 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 need to be made cleane therewith: you shall perceiue the benefit thereof. The white poppie, which is sometimes vsed in pottage and clensed barly, tartes, and other contections for to quench the thirst, prouoke sleepe, and coole the great heat of agues, neuer groweth of his old root, but will be sowen euerie yeare in September, in hot and drie countries: and in other places from Ianuarie vntill March, and it is sowen commonly with coleworts. 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, young children and other folke to eat the seed of white poppie, for lickorishnes, without being any thing moued to heauinesse of sleepe, but made more stirring and liuely, which hath made me to thinke that the seed of Poppie is not so much to be feared, as some would beare in hand. *The vertues of Mustard.*

Chap.

Chap. XXXVII.

Of Cucumbers.

CVcumbers are sowen vpon a bed, in the moneth of March: and for feare of frost they are couered with straw vntill mid-May, which is the time when they would be remoued vnto such ground as is well manured and thicke layed with dung, fat, and soft, to the end they may be suffered to creepe and ripen vpon the ground: or else vpon beds, filled with fat and well manured earth, being a foot high. For to sow them there must be planted foure or fiue seeds, the one from the other some two foot, they must not be weeded at all, because they thriue the better when they be ouer-growne with weeds. Notwithstanding in Spaine they vse to weed them as carefully as they can, as also lighten and raise their earth, and there grow verie faire Cucumbers thereupon. It is good to water them oft, vntill they put forth their buds, and bring forth 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 vessell full 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 goe directly downe vnto the root of the Cucumber, without touching the fruit, because otherwise it would make it worse. It is true, that when it beginneth to ripen, the raine, and euerie other manner of watering is enemie vnto it, for thereby it becommeth but more withered, without any tast, 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 yeares, 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 oyle, because the cucumber of all other things hateth oile, and cannot thriue if he which doth till them, haue handled oyle.

Oile an enemie vnto cucumbers

The vse of Cucumbers is altogether hurtfull, because the nourishment and juice comming of them is easily corrupted in the veines, whereupon there grow in our bodies Burning-Agues, and such as are verie hard to cure: wherefore it is better to appoint them for meat for Mules and Asses, to which kind of beasts this fruit is verie pleasant and profitable, than to ordaine them for mens food and sustenance. It is verie true that their seed boyled with Barley-water doth prouoke vrine, asswage the heat of the reines, and also diminish the heat and thirst that is in Agues. A decoction made with the seed of Cucumbers, Winter-Cherries, Mallowes, and the seeds of vvhite Poppie, adding thereto the juice 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 long-wise, neere vnto a child which hath an Ague, being of the same greatnesse that the child is, doth deliuer it altogether from the Ague.

The vertues of the cucumber.

Chap.

CHAP. XXXVIII.

Of Gourdes.

GOurdes doe craue the like earth, and ordering, or tillage that Cucumbers doe, foreseene that they haue the Sunne at commaund: it is true, that they must be sowne with greater distances, and in such sort as they may climbe stakes, heapes of stone, and arbours, thereby to giue some pleasure in the beholding of the fruit 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. *Gourdes.*

Before you set them, you must steepe their seeds one night in water, that so you may learne to make the better choice of them, and to know which are good. And in that respect it will be good to take those which sinke downe to the bottome, and let alone those which shall swim vpon the top of the water, as being vnprofitable and worth nothing to sow. The seeds shall be put into the earth two together, the sharpe end vpward, in holes wide and deepe, to the quantitie of two foot, and three or foure foot euerie one from another, filled with old dung, that is verie 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 watered, will haue the most pleasant sauour and tast: wherefore if they be sowne in a drie ground, you must set hard 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 heat. It is certaine that the goodnesse and faireness of Gourds doth consist altogether in the good choice and well setting of the seed: for the seeds which are next to the necke of the gourd, doe bring forth long ones, those which are in the middest, round ones: and those which are by the sides, short and thicke ones: in which consideration if you would haue grosse and thicke gourds, which may serue to make vessells and bottles of, when they shall be drie, you must take the seed that is in the middest of the gourd, and set it with the head downward: but when you desire to haue them to sell and to eat, you must take of the seed next vnto the necke, and set them after the right and common manner: for so the fruit will grow long, and more tender, and of a greater price. The gourds intended to gather seed of for to sow, must not be gathered before Winter, and when they are gathered, they must be put in the Sun to drie, or else hung vp in the smoake, or else hung (as the manner is in France) vnder some chamber-floore, or else set them in rows vpon boards, for otherwise the seeds would rot: or else to put them in heaps of corne, which will not onely 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 goodnesse of the seed.*

The vse of Gourds is not so dangerous as those 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 preferred before either of the other two sorts. Physitians 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 strayned juice of Gourds stewed without liquor, in a new earthen pot, set in an ouen. There is nothing better for the drinesse of the tongue, for sharpe and burning humours, and for leane agueish persons, than the vse of the pulpe of Gourds, or the Syrope made of their juice. *The vertues of Gourdes.*

CHAP.

Chap. XXXIX.

Of Melons and Pompions.

Melons and Pompions.

MElons and Pompions doe not so easily grow in this Countrey, because they delight in a Countrey and Ayre that is hot: but by force of labour, and cunning skill, they are drawne vnto it, by ordering their beds, and remouing of them, where they may be shielded from the Cold, and receiue the benefit of the South Sunne, and reflexe of the heat of the same from some wall. And againe, it is a speciall furtherance and helping of them forward, to fore-cast, that they may grow in such seasons as are verie hot: for now and then Summer falleth out so variable, and mixt with cold or drought, or moisture, as that thereupon they be not ripe till Autumne, and towards the time of Vintage. Wherefore it standeth you vpon to hasten them and helpe them forward with dung, and with the heat of their beds; though this course, in the meane time, stand not so well with the health of the parties that shall eat them, or with the goodnesse and pleasant smell of the Pompions: and thereupon it commeth, that there are moe grounds planted with Cresses than 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 lyeth, and is beaten backe by some wall, the same also keeping away the North wind, hauing no shadow either of Trees, or of anie other thing, to keepe backe the Sunne from it, but being withall a good, fat, and substantiall ground, well weeded, well tilled, and the greene swarth well broken, and withall made verie leuell and euen. And this your quarter would be againe diuided into foure small quarters: and to set your Melon seeds which you intend to plant that yeare but in one of the said little quarters, letting the other three rest, and so successiuely, in succeeding yeares, to sow the said little quarters one after another: for then the Melons will grow in their naturall goodnesse and perfection; it being their nature to craue a new, rested, and well manured ground. And if it be requisite to helpe such ground with some sweetnesse, you must burne vpon it in Winter some Straw, or drie Dung, or some Elder tree amongst other wood, and 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 Goats dung well rotted; and this to be done a long time before you intend to sow your Melon seed: 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 spread and mixt with the earth long before Seed-time, as hath beene said: whereby wee may iudge, how vnfit the beds, now adaies 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 said place of the Garden, compassed about and hemmed in with a Mat: and vpon the bed must be cast a layer of the best and fattest earth that you can find, or of earth the thicknesse of three fingers, and in this earth to set your seeds; 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 seed of the Melon, which hath a thicke and hard huske, and looking verie greene within, which is of the first growne, and of those which grow neerest vnto the root, which you shall haue reserued in your Melon plot, vntill the full ripenesse thereof, that so you might haue others grow 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 verie quickly, steepe it in warme water sixe or seuen houres: afterward, about the tenth day of March, make your pits vpon your beds, some three or foure foot one from another, and two foot in depth and widenesse: and if you may make your choice of dung, then fill them vp with Sheepe or Goats dung that is old, well rotted,

and

and crumbly, and with verie fine blacke earth together, 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 goodnesse of the Melon is greatly hindered thereby: and thereupon pricke six or ten seeds of your pompions, the sharpe end downeward (although some put not in aboue foure or fiue) and couer them againe gently without much beating or treading of the earth downe vpon them. Afterward, for to auoid daunger of frosts, couer them with straw or mats borne vp with stickes prickt vp one way: or if you haue the benefit of great boards, or tables of boards, 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 wind bloweth and when frosts come. And as soone as the Melons shall haue put forth leaues bigge ynough, 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 remoued your Melons, till the fruit become of the bignesse of Oranges: and if you vse beds, you shall remoue 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 trunk of the root, without doing any hurt to it: and when the flower shall peepe out, you must cut off the ends of the armes of the heatbe, to the end that the flower and the fruit may come forth in greater store & aboundance. And for your better choice of the said seed, take that which is of the Melons first put forth (as I haue alreadie said) if so be that your melon plot doe 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 seed will sinke downe to the bottome: and it must not be aboue one yeare old, for if it be, it soone groweth sicke, and casteth his fruit in vntimely sort.

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 smel at their ends, 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 just and perfect ripenesse by this course, which the cutting with an yron would keepe them from: there must notwitstanding 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 gathering of Melons.*

Furthermore, that I may say something of their goodnesse, 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 thick & greater bellied, and haue their wrinkles more high and stretched out from the taile vnto the eye. Some of them are called Turquins, as those which haue a verie greene 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 seed than the pompions. The other sort may be called citruls, as hauing the fashion and colour of a citron, and their leaues diuersly drawne with many small lines, like vnto the feathers or wings of birds. The other are Winter pompions, and these are not so thick or great as the common pompions: and yet furthermore the one hath a white meat, and the other a yellow, whereupon the first doe craue more water than *The goodnesse of Melons.*

the later, and the later are better in a strange Countrie. But the Melons are best of all, as also the blacke coated Pompion, and the Muske Melon, which become so by hauing their seed 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.

Musky-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 meat 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 wel and sufficiently proued, that a slice of a melon or pompion put in a pot with flesh, causeth it to boyle the sooner. Physitians likewise giue it out for a truth, that the seed as well of melons as of Pompions, couered with sugar, or without sugar, is a soueraigne remedie to prouoke vrine, to asswage the heat of the reines, and to breake the stone.

The vertues of Melons.

Melons cause flesh to seeth.

Chap. XL.

Of certaine speciall obseruations for and about Cucumbers, Citrons, Gourds, Melons, and such like fruits.

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 forth and sprung, it becommeth the faster meat, and more sauorie, and sooner ripe.

To cause Pompions, Cucumbers, and Gourds to grow without seed, you must steepe your seeds in the oile of Sesamum, otherwise called Turkie millet, three dayes before you sow them.

Pompions, Gourds, and Cucumbers without seed.

To haue Cucumbers of such forme and fashion as one would wish, they must be put whiles they be yet young and small, together with their stalke, into vessells or bottles that haue some figure or shape drawne within them, and tie them about them, for in time they will fil vp the draughts and prints within the same: likewise to make them long, you must put their flowers into reeds, 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 longer: in like sort standeth the case with the Gourd.

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 carried and rolled or drawne from one place to another into the Sun, that so it may haue both the presence of the Sun-shine and absence of the cold winds and frosts, and when they begin to grow, breake off their ends.

For the helping forward of their growth.

To free them of vermine and lice, sow Organie round about them, or else pricke some boughs amongst their plants.

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 doe not water them at all, or else verie little.

A Cucumber without water.

To make melons or cucumbers laxatiue, sprinkle them fiue dayes together, and fiue times euerie day with water, wherein hath beene steeped and infused the root of wild Cucumber for the space of three dayes. Otherwise, vncouer them so soone as they haue put forth any budd, and dung them at the foot with about two ounces of blacke Hellebor steept in water, and afterward couer them againe. Otherwise, steepe the seed before you sow it three daies in the infusion of scammonie, or rubarbe, or

Pompions and Melons laxatiue.

or Agaricke, or some other purging medicine.

To make Pompions sweet and smell well, so soone as you haue taken out the core and wiped and dried the seed, put it amongst drie Roses, or some graines of Muske, and there keepe it vntill you must sow it, and if it so like you, sow them together: or else steepe the seed foure daies before you sow it in damaske or sweet water: by such meanes you may giue them such tast and smell as you please, if you steepe their seed before you sow it in any such liquor, as in Honied-vvater, in Rose-vvater, or in some other kind of water sweetned with Sugar or Muske: notwithstanding watering of them doth take from them a great deale of that smell, as also of their sauour and taste. *Sweet Pompions.*

To make Cucumbers or Pompions sugred, you must steepe the seed in water that is well sweetned with Sugar or Honie, and to make them sweet in Sheepes milke, or Honied water, and so sow them: and when they be growne, you must sprinkle them ouer with the dust of some drie earth, and water them a little. *Sugar-Melons.*

To make Pompions to keepe long, and not to be spoyled or rotted, you must sprinkle them with the juice of Housleeke. *Lasting Pompions.*

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 wil be bitter. *A woman in her termes maketh Pompions drie and die*

Cucumbers indure fresh a long time, if they be put in the sweet lees of wine, or else in brine, or if they hang in a vessell wherein there is a little vinegar. *To keepe Cucumbers fresh a long time*

Pompions will haue the smell of Roses, if their seed be mingled with drie Roses, and afterward sowne together: and then also they are excellent good to quench the thirst in burning agues. *Pompions smelling like Roses.*

Chap. XLI.

Of Strawberries.

Strawberries haue no need of great toyle 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 hearbes, so also they are found growing amongst great tall trees, without any manner of husbanding or tillage. It is true that they grow well in the open Sun, so that they be watered once or twice a weeke, especially when they begin to looke red: they must be remoued euerie three yeares, to make them beare faire berries, and their earth raised about them once euerie yeare, and that about Christ-tide, and to weed them by hand when as weeds doe ouergrow them: in the ground whither you remoue 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 lye 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 root with a dibble. In these you may obserue a certaine kind of wonderfull harmelesnesse and innocencie: which although they creepe vpon the earth, and be continually troden vpon by Adders, Lizards, 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 poyson. *Strawberries.*

Amongst other pleasures or commodities that they afford, the juice or wine that is strained from strawberries, is good to take away the red pimples, & itching knobs, which grow 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 roots and leaues of Strawberries made with wine, is singular good for the jaundise, if it be drunke for some time in the morning, as also to prouoke the termes *The vertues of Strawberries.*

in women; and this neuertheleſſe doth ſtay the white termes and bloudie flux: alſo vſed in forme of a Gargariſme, it comforteth the gums and teeth, and driueth backe rheumes.

Of Phyſicke Hearbes.

Chap. XLII.

Of Mallowes.

Borders for phyſicke herbes.

WE haue heretofore dedicated and appointed certaine borders downe below the Kitchin garden, neere vnto the wall of the orchard for Phyſick hearbes, 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 familiar 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 grow euerie where, yet if you be diſpoſed to ſow them you may doe it moſt commodiouſly in Autumne, rather than at any other time, to the end 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 rellith: but to the end they ſhould not grow vp into high and great ſtalkes, after that they be come forth of the earth, you muſt put ſome little bricke in the middeſt 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 forth a well liking and thicke ſet root.

The root of Mallowes ſleept 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 juice drunke to the quantitie of halfe a pound, or the decoction of the rootes and leaues comming to a certaine thick conſiſtence, is exceeding 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 doe, becauſe they are of the ſame kind, and in both of them, eſpecially in the Mallowes, we muſt obſerue as a miraculous thing, that their leaues and flower doe open at the approach and comming of the Sunne, and ſhut vp themſelues to goe to bed when it ſetteth, as doe the Marigolds.

The vertues of Mallows and Hollihocks.

Both theſe haue verie great power and vertue to mollifie, they ſerue alſo to looſen the bellie, eſpecially the young and tender crops of Mallowes haue vertue to aſſwage the paine of the reines, and doe cauſe a man to make water. The juice mingled with oyle doe heale the ſtinging of Waſpes. The juice mingled with Wine doth helpe women trauailing of child birth. Their leaues ſtamped with the leaues of willows doe ſtay inflammations. A cataplaſme made of their leaues, doth take away the hardneſſe of the mother and other parts, eſpecially if it be made of Mallows with oyle of Roſes.

Gentian.

Gentian grows in high places & open to the ayre, being notwithſtanding wateriſh

and

and ſomwhat ouerſhadowed. This hearb through his bitterneſſe draweth downe the termes and the ſtayed vrine: The water thereof, eſpecially of the root, being diſtilled through a Limbecke in Maries-bath, doth maruailouſly heale the Agues cauſed of the obſtructions of any noble part: and which is more, it killeth the wormes, and wipeth away all the ſpots of the face, if they be often waſhed therewith. It is exceeding good againſt the inflatomation of the eyes. It is verie ſoueraigne againſt any infection or mortall ſicknesſe, if it be drunke with Water and Honie it abateth the ſwelling of the bodie, and eaſeth the colicke, whether it be in the ſtomach or in the bowels, it alſo cureth the biting or ſtinging of venimous beaſts, and it cauſeth a woman to be deliuered of her dead birth.

The root 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 poyſon, and a meanes to withſtand all putrefaction: in regard whereof, the Switzers mingle it amongſt their owne meat, and the fodder or prouender of their cattell, 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 Latines *Hydropiper*) doth require a marſhie ground full of water, or at the leaſt verie moiſt, or often watered, and it groweth rather being planted of a root then ſowne of ſeed. *Arſmart.*

It is verie ſingular in ointments for old vlcers and fiſtulaes, as alſo in clyſters for bloudie 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 euerie day, and the horſe needs not to be forborne for all that. Or elſe take the hearbe new, ſteepe it in water, and waſh it, then rub therewith the ſwolne or gauled place, then put the hearbe 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 hearbe is rotted, ſo ſoone will the ſore be healed.

If you ſpread it all greene in the bed, it killeth fleas, you ſhall keep powdred porke from wormes, if you wrap it in the leaues of this hearbe: the juice thereof dropped into wormie eares, doth kill the wormes that is in them.

Eye-bright delighteth in a leane ground, and ſhadowed place, and yet where moiſture is not altogether wanting, ſuch as are the meadows and little mountaines; it groweth of roots, not of ſeed. It is ſingular good againſt the dimneſſe, wateriſhneſſe, cataract, rheume, and weakneſſe of the eyes, being either applied and layd 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 yolke 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 eyes: ſome vſe much to take Wine wherein eye-bright hath beene 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, than the wine of eye-bright, as I my ſelfe haue proued 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 vvith the vvater 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 alreadie wholly loſt his ſight, by the often vſe of the leaues of this hearbe as well greene as drie, as well in his drinke as in his meat. *Eye-bright.*

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 be remoued, and that into a place of the like nature and qualitie. *Veruaine.*

Beſides the helpes that this hearbe affordeth vnto vveake eyes, it is alſo good againſt the paine of the head, teeth, and vlcers of the mouth, and principally in the infections of the skinne, as the itch, the tetter, the flying-fire, the ring-worme, 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 Vinegar.

Elicampane. Elicampane must not be sowne of seed, because the seed hath no power to grow: but it must rather be planted of the yeung sprouts pulled gently from the root, and that in a verie well tilled ground, and which hath beene manured, not verie moist but yet ouershadowed. It is good to plant it in the beginning of Februarie, leauing three foot distance betwixt plant and plant, for it hath great leaues, and the roots do spread verie much, as doe the young sprouts or roots of Reed.

The vertues of Elicampane. The Wine wherein the root of Elicampane hath steept for the space of foure and twentie houres, is singular good against the colicke, as we haue alreadie said in the first booke: the juice of the root is singular good to continue and keepe the faire and beautifull hew of women. The decoction of the root is likewise good to rejoyce the heart, and to prouoke vrine, and the termes of women, as also to cause one to spit 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 bodie.

Dittander. Dittander which hath the tast of pepper and mustard (for which cause it is called of the Latines *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 yeares, prouided that it be carefully weeded and dunged: it continueth in many places whole ten yeares, and it cannot easily be destroyed.

The vertues of Dittander. The root of Dittander stamped with Hogs-grease, or with the root 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 rasing 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 euerie ground, so that there be any shadow for it, and it would be sowne in Februarie, and may so continue ten yeares, so that alwaies after it hath cast his seed, the stalkes thereof be cut downe within foure fingers of the root.

The vertues of Celandine. The juice of the flowers mixt with honie or womans milke, or some other thing to asswage the sharpenesse of it, doth take away the spots in the eyes, 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 mettalls. Some say, that the old Swallows doe recouer the sight of their young ones being pore-blind, by applying vnto their eyes the leaues of Celandine: some say likewise, that the leafe of this hearbe carried in the shooes next vnto the bare sole of the feet, doth heale the jaundise: being applied vnto the paps, it taketh away the aboundance of Milke: stamped together with the root in the oile of Cammomile, and being warmed or fried, and applied vnto the nauell or stomach, it asswageth the frettings of the bellie, and paines of the mother: the whole hearbe being dried and made in powder, doth heale wounds and vlcers: the juice thereof dropt into a rotten or hollow 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 Pilewort, or the hearbe for the Kings-euil, 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 as wel in his leaues as in his root vertue to heale the Kings-euil come to exulceration, as also other virulent vlcers, hemorrhoides, cankers, hard tumours, whether scirrous or porracious and other cold tumors, by a mollifying and dicussing qualitie 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 sowne. The root of *Asarum* being dried and made in powder, is good to be taken the weight 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 euerie day, or euerie two daies,

daies, the quantitie of a good goblet full of the decoction of this root, made in wine with honey, putting thereto some Cinnamon, Mace, and other such Spices, by which they purge verie much, as well vpward as downeward: Likewise when they feele the fit comming, they chafe the backe and soles of the feet with oyle, wherein they haue caused to be infused this root 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 eyes, doth heale the Web in the eye, and dazeling of the eyes. Manie good women doe apply *Asarum* vnto the wrists of the hands, to driue away the heat of an Ague. You must obserue (as it were) diuers parts in this hearbe: For the root is a prouoker of Vomit, and the leaues thereof are Aromaticall, and agree verie well with the stomacke.

Valerian groweth verie well in a moist and well manured ground, and would be often watered, that so it may put forth a tall stalke. *Valerian.*

The good wiues are wont to apply to the wrists, in burning Agues, the leaues of Valerian, but without reason: for the Valerian doth rather encrease 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, and put it into anie wound, made either with Arrow, or Sword, or otherwise, and the drosse or grosse part thereof layd vpon it, you shall cause the yron to come forth, if anie such be stayed behind, and so also heale the wound. Cats doe delight much to eat this hearbe. The decoction is good against Venime, and the Plague: It is good also against shortnesse of breath, if there be mixed therewith Licorice and Damaske Raisins.

Angelica would be sowne in a well tilled ground, oftentimes wed, and reasonably watered. *Angelica.*

The root 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 Rosewater, wherein it hath beene steept, hee cannot be infected of anie euill ayre of all that day. Englishmen vse the leaues and roots of this hearbe in sawce 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 Honey, and applyed in forme of a Cataplasme, doe heale the bitings of mad Dogges, and the stinging of Serpents: Being layd vpon the head of one that hath an Ague, it draweth vnto it all the burning heat of the Ague; and it is good against Sorcerie and Inchantment. The distilled water of Angelica is singular good against the fainting of the Heart, the bitings of mad Beasts, the stingings of venimous creatures; especially against the Plague, if with this distilled water there be drunke halfe a dramme of the root in powder, and a dramme of Treacle, and that afterward the patient giue himselfe to sweating, for by this means manie haue beene saued. The root put into a hollow tooth, assuageth the paine: being chewed, it maketh the breath sweet, and concealeth the smell of Garlick, or anie other such meat which causeth an ill breath. *The vertues of Angelica.* *The Plague.* *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 sowne in the encrease of the Moone, and not aboue three fingers depth in the earth. It loueth the companie of Wheat verie well. It will not be prickly, if before that you sow it you put the Seed in the root of a Lettuce, the leaues broken off: or if you breake the sharpe pointed end of the Seed against a stone, after the manner spoken of before in the Chapter of Artichokes. *Blessed Thistle.*

Blessed thistle hath no lesse vertue against the Plague, or anie other sort of Poyson, 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 Quartane Ague, *The vertues of Blessed thistle.*

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 ſeed in powder. The ſame remedie is good for Pleuriſies, and for children that haue the Falling ſickneſſe. If it be boyled in Wine, the decoction is good to aſſuage the paines of the reines, and colicke, to kill wormes, and to prouoke ſweat. Bleſſed thiſtle, as well drie as greene, taken inwardly, or applyed outwardly, doth heale maligne vlcers. Phyſitions likewiſe commaund it to be mingled in decoctions and drinkes for the Pocks.

Mother-wort. Mother-wort groweth in vntilled and rough places, and ſtandeth not in need of anie tilling: notwithſtanding, it is ſingular againſt the beating and fainting of the heart; 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: dryed and made in powder, and the quantitie of a ſpoonefull taken in Wine, doth mightily helpe forward the deliuerie of Women labouring of Child-birth.

Golden-rod. Golden-rod would be ſowne in a fat ground, which is not open vnto the heat of the Sunne, but hath the ſhadowes of ſome Trees, the top 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 manner of Comfrey) it healeth wounds, vlcers, and fiſtulaes, as well inward as outward: it ſtayeth rheumes and bloudie fluxes, healeth the vlcers of the mouth, and the inflamation thereof: Which is more, it is verie ſingular to prouoke vrine, and to breake the ſtone.

The vertues of Golden-rod.

Saxifrage. Saxifrage, as well the great as the ſmall, delighteth in a drie ground, chalkie, clayie, ſandie, ſtonie, and altogether barren: And it is ſowne of ſmall ſeedes, which are found hanging to the rootes thereof. It prouoketh vrine, and ſo drieth foorth the grauell of the reines and bladder. If you boyle the root and ſeed 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 anie great tilling: for it will grow either of ſeed or root in a leane ground, that is drie and vntilled; as wee may well ſee in ditches, where it groweth withour anie labour at all, and in the high wayes and by-pathes in the fields.

The rootes, ſeedes, and iuice of the great and ſmall Burre, are verie ſingular to prouoke vrine, to breake the ſtone of the reines and bladder, and to ſtay the bloudie flux. The iuice is drunke with white Wine, or alone, and the ſeed in like manner, which is ſometimes, for the more pleaſantneſſe ſake, confected or couered with Sugar. The leaues ſtampt with a little ſalt, and applyed vnto the bitings or ſtingings of Adders, mad Dogges, or other venimous Beaſts, are verie ſoueraigne. The rootes or ſeedes of ſmall Burre, ſtampt and layd on cold ſwellings and rebellious ſtrumaies, are verie 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 prickes, after the manner 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 auoid grauell: and herein it is of ſo great vertue, as that the much vſe of it doth cauſe one to piſſe bloud ſometimes. The decoction of the root with honey, after the manner of a honied water, doth the like, but more gently, and without cauſing the partie for to piſſe bloud.

Ladie-thiſtle. *Maries* Thiſtle (otherwiſe called *Spina alba*, or white and ſiluer Thiſtle, or wild Artichoke, or Aſſe-Thiſtle, becauſe that Aſſes delight much to eat it) doth loue a fat and well tilled ground, and other ordering, like to that of Beets: and it is as true, that it letteth not to grow in vntilled and vnhusbanded grounds. The ſeed and roots haue (as it were) the like power to take away obſtructions, to prouoke vrine, and to breake

breake the ſtone, that Star-thiſtle hath. The Italians vſe the roots thereof in Salads, after the manner of Artichokes; and good wines, to gather the milke of it, for to eat. Some make a Priſane with the root 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 dramme of the ſeed of the ſame hearbe.

Siluer-graſſe (ſo called, becauſe the leaues doe reſemble ſiluer on the backe-ſide) doth delight in a moiſt and graſſie ground, howſoeuer vnhusbanded it be. It hath one excellent propertie aboue all other hearbes, for to breake the ſtone, to heale vlcers and malignant wounds within the bodie, to ſtay the bloudie flux, and to diſſolue cluttered bloud, being taken in drinke. Some ſay, that if you put it in halfe a baſin full of cold water, and couer that baſin with another baſin, 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 dye of the Sunne out of the face. *Siluer-graſſe.*

Patience doth willingly grow in coole and moiſt grounds: and we ſee it ordinarily to grow neere vnto Riuers and little Brookes. The root, by reaſon of the great bitterneſſe and deſiccatiue power, hath ſingular commendation againſt the Plague: for being dried and powdred, and afterward drunke with wine, it driueth away all venime from the heart, by the aboundance of ſweat which it procureth. Some for this purpoſe take away the rinde and core of this root, 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 root drunke with wine, is excellent for the ſuffocations of the Matrix, and the wringing throwes of the bellie. 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 applyed outwardly, either in iuice, or in the decoction thereof. *Patience, or Monkes Rhewbarbe.*

Scabious groweth in the ſame ground that Patience doth, that is to ſay, in woods, vntilled places, and eſpecially in ſandie places. *Scabious.*

It is verie proper and appropriate vnto the Cough, and diſeaſes of the Lungs: for the ſame purpoſe alſo the iuice is ſometime extracted, ſometime the hearbe it ſelfe made into powder, and ſometime the decoction of it is made to endure for a long time. Likewiſe there is ſometime conſerue made of the flowers. His leaues or rootes applyed to itchie places, and the places bare of haire, or mixed with oyles and ointments, doe great good vnto the ſame, as alſo vnto plaguie carbuncles: for they being rubbed with the iuice of Scabious, will be found to vaniſh away within three houres. The iuice of Scabious drunke in the quantitie of foure ounces, with a dramme of Treacle not yet one day old, is a ſingular remedie againſt the Plague, ſo that afterward the partie ſweat in his bed, and withall, continue the drinke for manie times. The ſame remedie ſerueth for the bitings of venimous beaſts, if, beſides the drinke, you apply outwardly vnto the ſoare the leaues of the ſame hearbe bruiſed. A Liniment made of the iuice of Scabious, the powder of Borace, and a little Camphire, is ſingular againſt tettars, itch, freckles, and other infections or defilements of the skin. Aboue all other things, the decoction of Scabious being drunke the ſpace of fortie daies, doth heale the tettar throughly, yea, though it came of the Pocks, as I my ſelfe haue oftentimes proued by experience.

Scolopendrium, or rough Spleene-wort, called alſo Harts-tongue, would be planted in a ſtonie and grauellie ground, which is moiſtened with ſome running Brooke; and for want of this, it muſt be often watered. The rootes thereof muſt neuer be pulled vp, but onely the leaues cut: for it cannot be ſowne, ſeeing it bringeth forth no ſeed. The decoction thereof made in white wine, is verie good for ſuch as haue a hard Spleene, and are ſubiect to a quartane Ague. *Rough Spleene-wort, Stone-wort, or finger-Ferne.* *The vertues of Spleene-wort.*

Betonie delighteth to be ſowne in a moiſt and cold ground, and neere vnto ſome wall, by which it may be ſhadowed, for it is not farre in loue with the Sun-beames. *Betonie.*

The

The root hath contrarie properties to the leaues and flowers: for the root disquieteth the stomacke, and is verie vnsauourie vnto the mouth; his leaues and flowers are of a verie good smell, and a tast correspondent and answerable.

The properties of Betonie.

The decoction of Betonie made in white wine, assuageth the paines of the reines, breaketh the stone, and healeth the Iaundise. The leaues stamped and applyed in forme of a Cataplasme, doe quickly ioyne together the wounds of the head. A Cataplasme made of the leaues with Porkes grease, doth ripen the tumors called Cathaires, and all other sorts of Impostumes. The leaues stamped with a little salt, doe heale hollow and cancrous vlcers. To be briefe, this hearb hath so manie and so great vertues, as that the Italian, when he would highly commend a man for his gifts, will say, that he hath moe vertues than 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 be taken 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.

Lyons-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 heat of inflammations and vlcers. The same hearb stamped and applyed vnto the teats of women and young maids maketh them hard and firme.

Great Comfrey.

Great Comfrey groweth in moist places, and hath the same propertie 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 boyling, the pieces of flesh will become no more manie, but one. The root of great Comfrey, whiles it is yet greene, and newly pluckt out of the earth, being spread vpon Leather, or vpon Linnen, and applyed in forme of a Cataplasme vpon goutie or rheumatike places, doth presently appease the paine of the gout, being a thing often proued and tried. The same root dried and made into powder, is good to put in childrens pappe, which haue their rimme broken; as also to stay the flux of the bellie. A Cataplasme made of the root of great Comfrey with Beane flower, and applyed vnto the place where the childs guts fall downe, is a soueraigne remedie to cure the same.

Gout.

Rupture.

Self-heale.

Self-heale craueth a fat ground, and where the Sunne beateth not much: it groweth of seedes, and not of rootes, and hath like properties that Bugle and Comfrey haue, especially to stay the spitting of bloud, the bloudie flux, and to conglutinate wounds within the bodie (where no man can come to apply tent or oyntment) 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 tongue, doth smell and tast like Myrrhe.

Water Germander.

Water Germander (called of the Latines *Scordium*) groweth verie easily, and without great paine or toile, so that it be planted by little slippes 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 Poyson and the Plague: and furthermore, the decoction thereof taken as a drinke for certaine daies, doth heale the tertian Agues, and putteth away the obstructions of the Spleene, and prouoketh vrine.

The vertues of Germander.

Fole-foot.

Fole-foot must be planted in a verie 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 root of it, which if you gather and picke verie cleane, and afterward wrap it in a Linnen Cloth with a little Sal nitrum, and so boyle it a little in Lee, and afterward lay it to drie in the Sunne, you shall haue an excellent match to take fire at a flint and fire-steele; for it taketh fire so easily, that it will light at the first stroke of the steele.

Amongst

Amongst other vertues, it is singular good to comfort the lungs and parts aboue the breast, whether you take it in a decoction, or in a syrrup, or in manner of a fume at the mouth, or otherwise; especially if you mingle some slippes of Hysope, and some figges, or syrrup, with the said decoction. The great Colts-foot, especially the root thereof, dried, powdred, and taken in the weight of two drammes 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 boes, or are short-winded.

The great and small Carline (so called, as though it were *Caroline*, because this Thistle was in a diuine manner made knowne vnto *Charlemagne* by an Angell, for the deliuering of his hoast from the Plague, which did miserably annoy them) doth require to be sowne and planted in a drie ground, and stonie, and where the Moone and Sunne doth shine pleasantly. *Carline thistle.*

The root of the great Carline made into powder, and taken the weight of a French crowne, is singular good against the Plague, the feeblenesse and faintnesse of the Heart, for the keeping of the Vrine, the breaking of the Stone, the paines of the Sides, and Conuulsions: applyed outwardly after it hath beene steept in vineger, it helpeth the Sciatica.

Eringium groweth in an vntilled, rough, and drie ground. The wine wherein the rootes of Eringium haue beene boyled, prouoketh the Termes and restrained Vrine, breaketh the Stone, and casteth out it, and Grauell. It is good for such as haue the falling Sicknesse, Dropsie, or Iaundise. The decoction of the root is singular good to resist Drunkennesse. The distilled water of the young buds of the leaues being drunke euerie day, and that so oft as one can, is maruellous good for them which haue their bodies troubled with vlcers caused of the French Pocks, in as much as it comforteth the Liuer. The same water is verie profitable for the quartane and quotidian Agues. The root thereof taken either in powder, or in a decoction, with the broth of those Frogges which are vsed to be eaten, or for lacke of Frogges, in the decoction of a Goslin or greene Goose, is a preseruatiue against the poyson of the Toad, Hedge-frogge, and other venimous hearbes. It doth good also in the diseases of the heart, being drunke with the decoction of Buglosse or Balme. *Hundred headed thistle. Eringium. Sea-Holly.*

Beares-breech, called of the Latines *Acanthus*, groweth in stonie and moist places, although it loue to be diligently tended, or otherwise not to yeeld anie profit. *Beares-breech.*

The root and leaues are verie mollifying: taken in drinke, they prouoke vrine: and applyed in forme of a Cataplasme, they are good against conuulsions, wrenches, and contractions of the ligaments: They are to good effect vsed in the Clysters of them which haue the Dropsie.

Diuels-bit (so called, because it sheweth as though the middle, or the heart of the root, were gnawed or bitten by some Diuell, so soone as it is planted, or hath put vp in anie 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 anie fat earth, or verie moist: for, as we see, it groweth vpon mountaines, in bushes, and places altogether barren. It is true, that it groweth also in medowes, but yet such as are not verie moist. It is found in great aboundance in the medowes of Verriere, a borough neere vnto Paris. *Diuels-bit.*

The root and greene leaues being stamped together, and applyed vnto Carbuncles and pestilent Buboes, doe heale them: The Wine wherein they haue boyled, is drunke with good successe against the Plague, and against the griefes and suffocation of the Mother. The powder of the root thereof 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 grauellie places. *Cinquefoile.*

The decoction of the root vsed for a Gargle, doth assuage the tooth-ach, and heale the vlcers of the mouth: in a Clyster, it stayeth all manner of flux of the bellie, as well the bloudie flux as others: taken as a drinke, it is singular against the Iaundise, the stopping of the Liuer, and against a pestilent ayre, and poyson.

Tormentill

Tormentill. Tormentill (like in ſtalke vnto Cinquefoile, but vnlike in number of leaues, in as much as it hath ſeuen) delighteth in the ſame ground that Cinquefoile doth, though not altogether ſo wateriſh, and called Tormentill, becauſe the powder or decoction of the root 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 Poyſons and Venimes: it ſtayeth likewiſe all fluxes of bloud, whether it be ſpitting, or menſtruous, or of the bellie, all vomiting, and vntimely birth, whether it be taken inwardly by the mouth, or applyed outwardly, or whether it be taken in ſubſtance, or the diſtilled water onely.

Perwincle. Perwincle delighteth in a ſhadowed and moiſt place: we ſee it grow likewiſe in Willow grounds, Hedge-rowes, and out-ſides of Woods.

The leaues, as well in decoction, as otherwiſe, doe ſtay all manner of flux of the bellie, or ſpitting 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 collar thereof to put about your necke, or a garland for your head: or if you put them vnder and about the tongue: After the ſame manner you ſhall ſtay the monethly termes, as alſo preuent vntimely birth, if you apply them vpon the groines.

Biſtort. Biſtort, as well the great as the ſmall, doth delight in a moiſt, wateriſh, and ſhadowie place: it groweth alſo in high Mountaines.

The root thereof doth ſtay 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 ſtayeth the flux 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 tyle, and be eaten by and by. It is ſingular good, as well in the decoction and ſubſtance, as in the diſtilled water, againſt all Venime; as alſo againſt the Plague, againſt Wormes in little children, againſt the Meaſels, Purples, and ſmall Pocks in young children; againſt the bloudie flux, and all manner of falls; againſt the paine and rheumes of the teeth, if you put it into the hollow tooth with a little Allome and Pellitorie of Spaine.

Pionie. Pionie, as well 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 neck, or applyed vnto the wriſts alone, or with the Miſſeltoe of the Oake, is a verie ſingular preſeruatiue againſt the Falling ſickneſſe: Whereunto notwithſtanding I would not haue thee ſo much to truſt, as that thou ſhouldeſt not looke after ſome other remedie: aſſure thy ſelfe rather, that it is ſingular in bitings and ſtingings that are venimous, as well taken inward, as applyed outward. Thirtie ſeeds of Pionie husked and brayed, and the verie kernell made into powder, and drunke with wine, doth fetch againe the ſpeech when it is loſt.

Paules Betonie. *Paules* Betonie, both male and female, would be either ſowne or planted in the verie ſame ground with Pionie.

This hearbe, eſpecially the female, is verie 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, as well new as old; all ſorts of vlcers, whether maligne or cancrous; ſwellings, and hot tumors, itch, and all the diſeaſes of the skin: and which is more, the often vſe, as well of the iuice, as of the diſtilled water of *Paules* Betonie, doth perfectly cure the Leproſie: whereof we haue a notable and famous teſtimonie of a French King, who thereby was throughly cured thereof: And this is the cauſe why this hearbe is called the Leapers hearbe. 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 proued; for that a certaine perſon, well knowne vnto me, hauing a virulent vlcer, in manner of a Polypus in his noſthrils, of the cure whereof, manie, as well Phyſitions as Surgions, being excellent men, and dwelling in this Towne,

Towne, did altogether despaire, was notwithstanding wonderfully cured by the application of this Balme, and often vse of potions made of the decoction of the leaues of the female *Paules* Betonie. This hearbe is singular also in Clysters for bloudie Fluxes; and in drinkes, for pestilent Feauers, vlcers of the Lungs, and obstructions of the Liuer and Spleene.

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 stonie, and hauing a good ayre. *Gromell.*

The iuice of the leaues and powder of the seed being drunke with Wine, hath a singular vertue against the Grauell and Stone, and procuring of the Vrine to passe away. There is nothing more singular for the burning of the Vrine, than to drinke manie mornings the seed of Gromell, to the quantitie of two drammes, Ceterach halfe a dramme, and Amber two scruples, all being powdred with the iuice of Plantaine, or Purcelane, or Lettuce. In like manner, two drammes of the seed of Gromell, with womens milke, doth much comfort and strengthen a woman in her child-birth.

Hypericum loueth the like entreatie that Gromell loueth: and yet withall it doth refuse a fat and well tilled soyle. The iuice of the leaues and flowers healeth cuts and wounds. The seed 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 fruit of the Elme tree, the flowers of Hypericum, and the buds of Roses, put them all together in a Glasse-bottle, 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 oyle of Hypericum. *Saint Iohns wort.* *The Balme.*

Ground-pine loueth a drie, sandie, and stonie soyle, and groweth better planted than sowne. The whole hearbe boyled 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 applyed vpon the hippe in forme of a Cataplasme: for the whole hearbe, with the flowers and roots, 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 boyled in vineger, and taken at the mouth, doth minister infinit helpe to a trauailing women, when the child is dead in her bodie. *Ground-pine.*

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 strengtheneth it: and it being boyled and drunke, doth helpe against the bitings of venimous beasts. The iuice of Agrimonie mixt with vineger and salt in a Liniment, doth cure the Itch. Agrimonie is good against the cough of Sheepe, and for broken-winded Horses. The liquor of the decoction of Agrimonie, with fumitorie made like Whay, 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 hearbe. If you gather good store of this hearbe, and steepe it in faire Spring water, in a large earthen pot, till the water putrifie, and then euerie morning wash the face therein, it will take away all manner of Morphew, Sunne-burning, Farn-freckles, and other spots or dunnesse of the skinne whatsoeuer, making the same also cleare and smooth, and filling vp euerie manner of wrinckle. Some likewise vse in this case to vse with Agrimonie the like quantitie of Goose-grasse: and sure it is not amisse; for they haue both one manner of force and working. *Agrimonie.*

White Mullein groweth euerie where: but best, in a stonie and sandie ground. The white Mullein, both leaues, flowers, rootes, and seed, is singular good against all manner of venime: as also to containe in his place the falling Fundament. *white Mullein.*

Good wiues, in like manner, for this consideration doe 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 root before it put forth his stalke, and drunke foure times in the quantitie of an ounce, with Hippocras or Malmesey, in the beginning of a fit of a quartane Feauer, doth driue it quite away. The iuice pressed out of the flowers or leaues, applyed to Warts, doth take them cleane away. Likewise, Gentlewomen find no better remedie than the iuice of white Mullein flowers, to take away the wrinckles and other blemishes in their face. The leaues bruised betwixt two stones, and applyed in forme of a Cataplasme vpon the foot of a Horse that hath beene cloyed, doth affoord him a singular and present reliefe. The water distilled of the flowers, quencheth the firinesse of the face, if there be a little Camphire added thereunto. It doth in like manner with the tumor called Erisipelas, the itch, burnings, and other diseases of the skin. The flowers of white Mullein, with the yolke of an egge, crummes of bread, and the leaues of Leeks, applyed vnto the Hemorrhoids, doe stay them altogether. 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 sowne, and grow in great aboundance, without anie great care of husbanding: and yet there must care and regard be had, not to sow it among Vines, because the wine which the Vines should yeeld, amongst whom Mercurie hath beene sowne, would retaine the tast of Mercurie, and become verie vnpleasant to drinke.

The vertues of Mercurie. The iuice of Mercurie being drunke, helpeth conception, prouoketh womens termes, and deliuereth them of their after-birth. The decoction of Mercurie doth loose the bellie, being drunke or taken in a Clyster. Some make a honey of the iuice of Mercurie, with a halfe quantitie of honey, and this is good for laxatiue Clysters. 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 especially the red termes of women, as also that which commeth of a wound, especially the leaues dried, made in powder, and drunke with the iuice or water of Comfrey or Plantaine. The leafe put into the nose, stayeth the bleeding: and put into a Clyster, it stayeth the bloudie flux. Milfoile bearing a white flower, being pounded with his flower, and drunke with water distilled from the same, and Goats milke, doth cure the burning of the vrine in men, and the whites in women.

Danewort. Danewort groweth better planted than sowne, and craueth a fat ground, well manured, and somewhat moist.

The iuice pressed from the roots 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 dramme, hauing beene first steeped a whole night in Wine, doth helpe the Dropsie, because it procureth stooles downward, and vomit vpward, to the voiding of great store of water. Being drunke also with the decoction of ground Pine, it assuageth the paine of the Gout and Pocks. There is also made a soueraigne Oyntment of the same for the appeasing of the said paines: Take the iuice of the roots of Danewort, the flowers of Rye, and fresh butter, of ech alike, mixe all, and let them worke together in an earthen pot set in the Ouen; with this Oyntment rub the aking parts: or else infuse the flowers in oyle, with mans grease, set in the heat of the Sunne. Some also make an Oyle of the seedes, pressing it forth of them.

Orpin. Orpin groweth for the most part in moist and shadowie places. The Countrey people doe, by their good wills, plant it vpon Saint *Iohns* night in dishes, or vpon trenchers of wood, in some cleft of a wall, the foot 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

remedie to heale wounds, and ſtay fluxes of bloud, for inward wounds and vlcers, and for burſtings and ruptures.

Goats-beard groweth verie 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 and leaues made in powder, doe cure the flux of the bellie, 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 new cuts and wounds: alſo for the Collicke, miniſtred in Clyſters, or taken in drinke, putting the ſmall chopt leaues into a Glaſſe-violl well ſtopt with gummie wax, and ſtrong parchment, and ſetting the ſaid violl in Horſe dung for the ſpace of fortie daies. 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, Horſe-taile, Tormentill, red Coleworts, and Dittander, is ſingular for wounds in the principall and inward parts, if it be oft vſed. This ground-Iuie is otherwiſe called of ſome, Ale-hoofe, and it hath a moſt ſingular vertue for the curing of all manner of ſore eyes, either in man or beaſt, if you take it and beat it well in a mortar, and drop into it three or foure drops either of white Roſe-water, or the water of Eye-bright, and then ſtraine it into a cleane Glaſſe-bottle, and keepe it cloſe, then waſh the ſore eye therewith, when occaſion is miniſtred, and the oftener in the day that you doe waſh the ſore eye therein, the better it is, and the ſooner recouered. *Ground-Iuie.*

Hounds-tongue groweth eaſily in peblie and vntilled ground. The leaues pounded and applyed vnto burnings, the wild-fire, old vlcers, wounds, and inflammations, aches, fluxes, and hemorrhoids, doe verie much good. There is made a ſingular Oyntment for wounds of the iuice thereof, mixed with honey of Roſes, and Turpentine. There are alſo made thereof pilles, to ſtay vehement and violent rhewmes. *Hounds-tongue.*

Adders-tongue 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 ſpoyled. The leaues ſtamped and applyed vnto burnings, inflammations, burſtings, and principally vnto wounds and maligne vlcers, are of a marueilous effect. There is a balme made of the leaues thereof for the ſame effects, whereunto ſome put Turpentine: Red wine, wherein this whole hearbe hath beene ſteeped, is good to ſtay rhewmes falling downe vpon the eyes. *Adders-tongue.*

Gooſe-graſſe doth grow in anie kind of ground, and hath no need of great tillage. Some doe 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 venimous beaſts, and to coole the heat of Cankers. *Gooſe-graſſe.*

Corne-roſe craueth a fat ground, and well tilled, ſuch as are Corne-grounds, wherein we may ſee them grow faire and verie well blowne. The flowers of Corne-roſe, as well the great as the ſmall, either in decoctions, or the diſtilled water, or in ſyrrups, or in powder, the weight of halfe a French crowne, are ſingular meanes to prouoke ſpitting in Pleuriſies, and to cure the ſame. *Of Corne-roſe, or wild Poppie.*

Baſtard Dittanie 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 ayre. The ſeed, root, leaues, and flowers, as well in powder as in a decoction, doe prouoke vrine, breake the ſtone, prouoke the monethly termes, caſt out the dead conception and after-birth: being eaten with Rubarbe, they kill and caſt out the wormes: The iuice applyed outwardly, doth draw forth thornes and thiſtles, and ſlumpes of ſplints. *Baſtard Dittanie.*

Knot-graſſe is called in Latine *Polygonum*, it groweth by the edges of Vineyards *Knot-graſſe.*

and fields that are badly tilled, especially when it is a moist yeare. Amongst the principall vertues thereof, the distilled water is soueraigne against the difficultie of vrine, as I haue oft proued by experience.

Salomons-seale. *Salomons*-seale must be set in a drie ground, and raised high. The root whiles it is new, being pownded, or the iuice of the same, wipeth out freckles, spots, blew markes of blowes, falls, or other such like thing, whether they be in the face, or in anie other part of the bodie. Some distill the water, which is verie good for the paintings 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 boyled, or rosted and mixt with honey, and afterward taken as an Eclegme, doe profit greatly for shortnesse of breath, difficult and hard coughs, and painefull getting vp of the spittle: in such sort, as that they cut, ripen, and wast the grosse humors and slimie. Being powdred and mixt with honey, they heale maligne and corroding vlcers, especially the Polypus. Their leaues spread vpon Cheese, doe keepe them from spoyling and rotting. If the iuice thereof be mixed with honey, and put into the eyes, they take away all manner of paine and aking thereof: Also who so batheth his hands in the iuice thereof, may handle anie venime without danger: Also it is a great cooler of lust, and maruellously abateth all lecherous cogitations.

Stinging and dead Nettle. As concerning the Nettle, it hath no need either of sowing or setting, for it commeth vp in Gardens more than one would haue it: yet notwithstanding it is not without his great vertues, as well the Greeke Nettle, as the Hungarian or dead Nettle.

Dead Nettle. The leaues, and especially the rootes of dead Nettle, stamped and put vpon the nosthrils, doe stay the bleeding of the nose: and their iuice rubbed vpon the brow, doth as much. The leaues of the stinging Nettle stampt with a little Myrrhe, and applyed 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 Oyle, doth defend the parts of the bodie from all cold and staruing, how great soeuer it might proue to be, if so be that you rub the ridge of the backe, the soles of the feet, and the wrists of the hands therewith. Likewise the iuice of this Nettle mixt with a little Populeon, and applyed vnto the wrists, appeaseth the great heat of Agues. The leaues beaten and mixed with oyle of Violets and Poppies, and applyed vnto the wrists, doe alike. The vapour of the decoction of Nettle seed doth take away the stuffing of the nosthrils. Such as haue the Cough, with a great ratling in the throat, cannot meet with a better medicine to make them spit out lustily, than to take with some pectorall syrrop, or decoction, the weight of halfe a French crowne of Nettle seed finely powdred. You must furthermore obserue this vertue in Nettles, as that if it be put into a pot wherein is flesh boyling, it will cause the flesh to be the sooner boyled.

Wast in boyling of flesh.

Stauesacre. Stauesacre must be sowne in a place reasonably drie and shadowed. The seed chewed and held in the mouth, draweth vnto it, by his heat, great quantitie of moisture: stamped and mingled with oyle, it driueth vermine out of the head and other parts of the bodie; it cureth scuruinesse and itch: steeped in vineger, and held in the mouth, it assuageth the tooth-ach.

Plantaine. There is not anie need of great care to be taken in sowing the great, small, or middle Plantaine, for they grow euerie where, and yet they must be esteemed by reason of their vertues. The iuice of Plantaine leaues or rootes pressed out, and drunke two houres before the fit, to the quantitie of two ounces, doth assuage the tertian Feauer. The leaues of Plantaine, stamped with the whites of egges, doe heale burnings. An emplaister made of the iuice of Plantaine, the white of an egge, and Bole-Armoniacke, and applyed vnto the browes, doth stay the bleeding of the nose.

Horse-

Horse-taile, as well the great as the small, requireth a verie 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 bloudie, or anie other such. The iuice put into the nosthrils, doth stay the bleeding of them: and with a Pessarie put vp into the necke of the Matrix, it stayeth the flux thereof. *Horse-taile.*

Pellitorie craueth no great care or tillage, for it groweth naturally neere vnto walls. A Cataplasme made of Pellitorie and the grease of a male or female Goat, is a singular remedie for the gowt, and slidings or falls. The leaues of Pellitorie fried with fresh Butter or Capons grease, and laid in forme of a Cataplasme vnto the bellie, doth assuage the paine of the Colicke. The iuice mingled in like quantitie with white Wine and oyle of sweet Almonds newly drawne, doth assuage the paine and torment of the stone. A Cataplasme made of greene Pellitorie, stamped with crums of Bread, and oyle of Lillies, Roses, or Camomile, doth resolue Apostemes happening in the breasts. It is good also for mollifying Clysters and Bathes that are deterging. *Pellitorie of the wall.*

Shepheards Powch groweth in all ground, but principally vpon the ruines of old walls, and neere vnto walls. The decoction of this hearbe in raine water with Plantaine and Bole Armoniacke, being drunke certaine mornings, or taken in Clysters, doth stay the bloudie flux, and the spitting of bloud. A bath prepared with the decoction of the leaues, stayeth the excessiue flux of the termes. But if you take it and boyle it in red wine, with a little Cinnamon and Tanners barke, and so giue it the patient to drinke, it will stay the most dangerous bloudie flux that can be possible. It is verie good also for the same disease, if it be giuen in milke. The iuice doth heale greene wounds, and being dropped into the eares, doth drie vp the vlcers of the same. The leaues stamped and applyed in forme of a Cataplasme, doth kill inflammations, and the wild fire. The leaues eaten doe stay all sorts of bleeding, being put into the nosthrils, as also holden in the hand, they stay the nose from bleeding. *Shepheards powch.*

Sow-bread desireth a shadowed ground, as vnder some tree or bush, which must notwithstanding be fat and well tilled to feed the root thereof, which is full, grosse, solide, and as it were like vnto the Turnep. The Forest of Orleance is well stored and replenished with this hearbe. *Sow-bread.*

This is a thing to be maruelled at, that the iuice of the root of Sow-bread snuffed vp into the nose, purgeth the head: and the distilled water thereof snuffed vp also into the nosthrils, doth presently stay their bleeding. The same water drunke to the quantitie of six ounces, with an ounce of Sugar, doth presently stay the bloud running downe from the breast, stomacke, or liuer, and knitteth together the vessels therein, if anie be broken: which I my selfe haue proued and tried. Two drammes of the iuice drunke with honied water, doe loosen the bellie, and free the liuer from obstructions, as also the spleene; in respect whereof, it is singular good for the Dropsie and Iaundise, but you must mixe with it a little Mastlicke, or Nutmeg, or Rhubarbe, 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 Oyntments, Liniments, and Cataplasmes, appointed for the hardnesse and swellings of the spleene and liuer. If you infuse the roots chopped small in the oyle of Roses, or Camomill, or sweet Almonds, and afterward boyle them together, putting thereto a little wine, in the end you shall presse them out: This oyle dropped by two or three droppes into the eares, doth driue away the noyse and deafenesse 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, stampe them with Peaches and bitter Almonds, steepe 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 deafenesse and the noyse of the eares. *The vertues.*

Crowfoot, although there be six kinds of it, yet they all loue a moist and marish ground, *Crowfoot.*

ground, and whereas the frogges delight to liue, which also take pleasure in and tumble themselues about this hearbe. It is true, that some of the sorts doe loue these moist places more than other some: for the Crowfoot that hath a double flower, not verie yellow, but somewhat red, and which appeareth onely 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 flower, of a yellow and golden colour, cannot grow but in some watrie medow-plot, and neere vnto standing water. The other, which beareth a double flower, not verie yellow, hath a bulbous and whitish root, of a sharpe tast. This same (as well the leaues, but especially the root) being applyed vnto anie part, is as causticke as Pigeons dung, or the Causticke stone, or anie other the most violent cauterie that may be found: for though you put betwixt the flesh and the hearbe a Linnen cloth fiue or sixe double, yet it will not leaue to cauterize and pierce deepe euen vnto the flesh. This is the hearbe, which being steept in Dragons bloud, the cursed rogues and wicked rouers vp and downe doe rub their armes, legges, and thighes withall, thereby to exulcerate them, that so they may moue the people with remorse, and so get the larger almes. This is the hearbe which *Silnius* calleth Crowfoot, and which is so much esteemed for the Plague, and Plague-sore, called a Carbuncle. Take, saith he, Crowfoot (hauing a root like vnto a small flat Onion:) this root, either alone, if it be bigge ynough, or two or three of them stamped and laid vnto the thombe of the hand that is on that side in the arme, whereof the Plague is broken out, or vnto the great toe of that foot that is on the same side that the groine is that hath the Plague-sore, and there leaue it foure and twentie houres, and it will make blisters, which breaking of themselues, doe let runne out the matter of the Plague drawne thither by a veine common vnto both parts: but because that this root is verie strong, you must put betwixt it and the thombe foure or fiue doubles of new and strong cloth, or six or seuen of thinne and worne cloth, and so couer it and bind it vp; and afterward you shall heale the vlcer of the thombe with the yolkes of egges and fresh butter beat together, with a little 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 manie 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 greatly abhorre this hearbe, whereof he cannot by anie meanes rid his grounds. The root is singular, as well in powder, as in a decoction, or in the water distilled from it (so that before it be distilled, the root be steeped in Malmesey twice 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 forth the Stone, as also to wast 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 kind of Wine of this root 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 Countrey groweth in a drie ground, being also stonie, and open vpon the Sunne. The root is much commended against Poisons and Venimes, Wormes in children, and cold diseases of the Matrix. Being taken inwardly by decoction, or in powder with Wine the weight of two drammes, or applyed or ministred in a fume, it moueth the termes in women: it bringeth forth the after-birth and dead child: it also driueth out the stone from the reines: but principally it is good for the Pocks, taking it euerie morning a long time the weight of a dramme with the decoction of *Guaiacum*. It is profitable also against the Plague euerie 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

ordering than Dittanie. This hearbe is called the Feauers scourge, because the decoction thereof being drunke in the morning for a certaine space, doth driue away and make an end of the tertian agues: the leaues eaten in a sallade in the morning fasting, it preserueth from the ayre and pestilent contagion, no lesse effectually than water Germander, of which we haue spoken before. The decoction thereof is singular good against the jaundise, and being vsed a long time, for the Falling sicknesse, head-ach, and other diseases of the braine, and for the wormes.

Rupture-wort groweth in a grauelly or sandie ground which is drie and vnhusbanded: there is likewise great store of it found in the wood of Bolton, neere vnto Paris. This hearbe made in powder and drunke with wine, prouoketh vrine that hath beene long detained, and breaketh the stone of the reines and of the bladder, if for some long time the partie take the weight of a dramme. *Falloppius*, 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-wort doth: it hath a verie strong astringent qualitie: and that is the cause why Shepheards 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 Physitians are wont to make their benefit of this hearbe in the bloudie flux, and aboundance of termes: as also to heale vp both inward and outward wounds, the spitting of bloud, and falling downe of the fundament. *Mouse-eare.*

Dogges-grasse, without setting or sowing, groweth more than 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, waterie, and marshie places. Of the root 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 end strained: is made an oyntment that is singular good to annoint the Kings-euill withall, and the Hemorrhoides: this root is set about with many small knots, hauing the resemblance of Hemorrhoids, or the swelling of the Kings euill. *Water betonie.*

It groweth without any great paine in gardens, and being sowne, groweth more aboundantly than one would haue it. The seed purgeth those that haue the dropsie verie much, if they be giuen in Whay: it is true that they may be vsed without annoyance done to the stomack, if it be parched and dried, as also mixt with Annise and Fennell-seed: furthermore it is verie good to set in gardens, to kill and driue away Moules. *Palma christi.*

This hearbe 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.*

Neither the one nor yet the other doth beare any seed, as Writers record: notwithstanding it hath beene tried, that the male beareth seed, 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 Iulie, which is the time when it is ripe: for to gather it, you must cut the leafe neere vnto the root, and then hang them vp in your house, spreading a linnen cloth vnder them, or else some faire cleane white paper. I know well that the common sort doe verily thinke and auerre, that this seed 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 Deuills, which haue the custodie of the same seed: but all this is nothing but fables. *The vertues.*

The decoction thereof is good to prouoke womens termes, to cast out the dead child,

child, 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.

Hearbe Two-pence. Hearbe 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 hearbe either in decoction or powder, but especially the water thereof distilled in a limbecke, is verie singular good for the falling downe of the fundament.

Fleawort or Fleabane. Fleawort (being called of the Latines *Psyllium*) craueth a verie fat, well manured and batled ground, for else there will no good come of it. The seed prepared in forme of a Mucilage, and applied in vinegar doth kill the wild fire and tetter: applied vnto the head or brows it taketh away the paine thereof: it taketh away also the rednesse of the eyes being applyed thereunto. The distilled water is of infinite goodnesse seruing in the paynes of the eyes, two or three drops thereof onely being dropt into them.

Fumitorie. This hearbe requireth a verie fat place, well manured and tilled: likewise we see it grow aboundantly in vineyards and grounds 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 physitians prescribe it with whay, in scuruie, scabbie, and itchie cases, and where the leprosie is, The juice thereof is good to cleere bleared eyes.

Ground-swell. Ground-swell groweth in euerie ground, and without any great care: we see it grow likewise neere vnto walls, and vpon the townes walls: it is greene all the yere, and flourisheth as it were in euerie moneth, and this is the cause why the Italians call it euerie moneths flower. Some thinke that Ground-swell distilled is verie singular good for the Whites in women: but beleeue it not before you find it true by proofe, for I haue obserued by often vse, that this hearbe whether in decoction or otherwise, prouoketh the termes that are stayed.

Aristolochie or birth-wort. Birt-wort, as well the long as the round, must be planted in a fat and fertile soyle, such as that where Wheat is sowne, and Oliue trees planted. Their roots (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 drieth forth the after-birth, the dead conception, and all other superfluities gathered in the Matrix: it doth the like being applied in forme of a Mother suppositorie. It purgeth all obstructions of the liuer, and easeth all manner of colicke or other griefes which proceed from windie causes, it is soueraigne against all manner of poyson or any other infection; it cleanseth the bloud, and by rubbing the gummes therewith it preserueth the teeth from rotting.

Centaurie. Centaurie, or the gall of the earth, aswel the great as the smal, 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 Gardener. Their root in decoction, juice, or powder, moueth womens termes, and prouoketh vrine, expelleth the dead child, purgeth flegmaticke humors which cause the sciatica, openeth the obstructions of the liuer and spleene, killeth the wormes, profiteth and helpeth palsies, convulsions, and diseases of the sinews, it cleareth the sight, and taketh away all mistinesse from them, especially the juice dropt into the eyes doth heale their fresh and new wounds, and siccatriceth old and maligne vlcers.

Woodbind or honie-suckles. Woodbind craueth no great tilling or husbanding, for it groweth euerie where and in what place soeuer it listeth. It is true that it desireth greatly to be neere broome hedges, and also the borders of fields. The fruit of Woodbind drunke with Wine the space of fortie daies, taketh away the obstructions of a hard and indurat spleene, it purgeth out vrine with such force, as that the tenth day the vrine becommeth all bloudie: it helpeth women in their child-birth: 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.

Pimper-

Pimpernel hath red and blew flowers, and craueth a moist and shadowed ground, so likewise we see it grow in the shadows of hedges and bushes. Pimpernell with the red flowers, stampt and applied vnto the eyes, or the juice thereof dropt within them, taketh away the inflammations, dimnesse, and vlcers of the eyes: and healeth the inflammations of the secret parts: Pimpernell with the blew flower boyled with salt and water, is a verie good and proper medicine to cure the itch or scurfe, and the lice, or wormes in the hands, if you wash them oft therewith. *Pimpernell.*

Buckwheat is a verie common hearbe, and yet but little knowne by his name; it is verie ordinarie in corne and tilled grounds about harvest time. The Peasants of Champaigne doe commonly call it Veluote, because (in my judgement) the leaues are hairie: which name I mind not to change, but rather to keepe for the easier knowing of the hearbe. 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 (than onely by the name) it putteth forth from the root, fiue, sixe, seuen, or eight small branches, for the most part layed along vpon the earth, of the length of a hand, and sometime of a foot, bearing leaues somewhat like vnto the little bindweed, but indeed they be lesse and more round, verie hairie, and a little fattie. The flower is small and of diuers colours, drawing verie neere vnto a pale yellow, but in greatnesse it commeth neere vnto the flower of eye-bright, but in shape and fashion vnto the nettle flower. *Buckwheat or binacorne.*

The water of the leaues and branches distilled (whiles it is in force) in a Limbeck in Maries-bath, is singular and maruailous good to stay the spreading of the canker in the breasts, and the creeping Polypus, howsoeuer some hold them as incurable. The same applyed to the brows taketh away the heat, and asswageth the paine of the head. In an injection it mundifieth first, and afterward conglutinateth wounds, and drieth vp fistulaes verie readily, and maligne vlcers which are easily prouoked, and become worse by other remedies: being dropt into weeping eyes it healeth them, and stayeth such rheumes as fall downe vpon them, and cause inflammation and dazeling of the same: being applied with a linnen cloth vpon itchings, wheales, scabbes, poukes, the wild fire, S. Anthonies fire or shingles, it cureth and healeth them in a verie small time, as also all other burning inflammations. Being drunke for certaine dayes, it stayeth 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 mind that it may be giuen to good and profitable purpose to other agues, the temperature thereof considered and his infinite other secret qualities, which euerie day are more and more manifested: being drunke and applied a certaine time, it re uniteth 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 bloud. Taken in a gargarisme with a little Wine, it driueth 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 throat called the squinancie: likewise taken in the same manner it is good against the blacknesse and roughnesse of the tongue caused of a continuall ague. The juice and decoction of the leaues worke the verie same effects, if they be taken whiles as yet the herbe is not too much dried by the heat of the Sunne. *The vertues of buckwheat.*

Of this Buckwheat there is made a compound water to make the face 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 handfulls, of the roots of Salomons seale made cleane with a linnen cloth, and after brayed a quarter of a pound, mingle all together, and infuse them for the space of twelue houres in wine, this being done, put all into a limbecke, adding thereto the juice of three Lymons or Oranges, then distill and draw out the water in Maries-bath, which you shall keepe verie carefully for your vse: but it is requisite that before this you haue made prouision of the liquor of the Brionie root, which must be gathered about the end of Aprill, or in the beginning *The compounding of the water of Buckwheat.*

ning of May, whiles the dews continue, and that in this manner. The head of this root must be cut a little, vncouering the top, and not pulling it vp by the root, 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 cap you haue cut off from the head, and some few 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 violl glasse, after which the couering must be put on againe as it was the day before, and this to be continued euerie day vntill mid-May, and longer if so be that one be disposed. Now when you would vse it, take an ounce of this liquor, and mixe it in a violl with two ounces of the abouenamed compounded water; and at night when you goe to bed, you must wet a linnen cloth in this mixture, and spread it all ouer the face, there letting it rest a good part of the night, but in the morning you must auoid the burning heat of the Sunne: and this course shall be continued for certaine nights together.

But although the hearbe alone applied, his juice, water, and decoction hauing great and excellent qualities, as it is easie to judge by that which hath beene said before, yet forasmuch as that one simple, or one drugge, or many joyned 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 afforded vnto it, I am willing for that cause to impart vnto you a maruailous oyntment made of the same Buckewheat, and the description of it, is in manner as followeth. Take of the juice of the leaues of Buck-wheat, layed in steepe in a little white wine the space of foure and twentie houres, one pound of the juice 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 juice of the leaues of yellow Henbane (commonly called small Nicotian, or the Queenes-herbe) halfe a pound, Oyle-Oliue a pound: mix all these together in a skellet, and boyle them vpon a small fire, stirring it often with a spatule of wood, vntill the juices be almost consumed: then adde thereto of new waxe, broken into peeces, and of Perrosine, of each a quarter of a pound, 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 skellet from the fire, and put into it at that present instant of Venice Turpentine a quarter of a pound by little threeds as it were, and stirring it continually with a spatule: then when the oyntment shall begin to wax cold, put in Masticke and Frankincense mixt together in powder, of each the weight two French Crownes, and cease not to stirre it as before, vntill it be all well incorporated. The marke to know when the oyntment is well made and fully finished, is, if a drop thereof being put vpon your naile doe congeale and clutter together, or that it cleaueth vnto the spatule stirring it. Then put you vp this composition or mixture in Gallipots, for to serue you as shall be declared hereafter.

An oyntment of Buckw-wheat.

This oyntment aboue all other remedies is singular good in the curing of the canker, as well of the dugs as of other parts, in the curing also of the Polypus, *Noli me tangere*, the Kings-euill, bruised 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 sorts of ringwormes, scabs, itches, pustules, the wild scab, and the wild fire. It is good for cuts of sinews 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 pulled and taken away. It taketh away the swelling and paines of the Hemorrhoides. Being applied with mans grease and a little oyle of Roses, it likewise taketh away the paines of the gout. It mundifieth and draweth out mightily the gunshot out of the bodie, and healeth the wounds vp without any other thing applied: it taketh away the blewnesse of drie blows. 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 discussetb all tumours that

that need not to be ſuppurated and ripened. But this muſt be obſerued, that before you apply it, you muſt diſcerne of the offending humor, to the end, that you may vſe ſome either generall or particular euacuation, according to good order, and that by the aduice of ſome Phyſitian.

Chap. XLIIII.

A diſcourſe of Nicotian, or the male Petum.

Nicotiana, though it haue beene but a while knowne in France, yet it holdeth the firſt and principall place amongſt Phyſicke hearbes, 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 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 hearbe into France: as alſo of manie, both Spaniards, Portugals, and others, which haue trauelled into Florida, a Countrey of the Indians, from whence this hearbe came, to put the ſame in writing, to quite ſuch of griefe and trauell, as haue heard of this hearbe, but neither know it, nor the properties thereof. *Nicotiana the chiefe of Phyſicke hearbes.*

This hearbe is called Nicotiana, of the name of an Embaſſadour, which brought the firſt knowledge of it into this Realme, in like manner as manie Plants doe as yet retaine the names of certaine Greekes and Romans, who being ſtrangers in diuers Countreyes for their Common-wealths ſeruice, haue from thence indowed their owne Countrey with manie ſorts of Plants, whereof there was no knowledge before. *Why it was called Nicotiana.*

Some call it the hearbe of Queene-mother, becauſe the ſaid Embaſſadour, Lord *Nicot*, did firſt ſend the ſame vnto the Queene Mother (as you ſhall vnderſtand by and by) and for being afterward by her giuen to diuers others to plant and make to grow in this Countrey. Others call it by the name of the hearbe of the great Prior, becauſe the ſaid Lord a while after ſayling into theſe Weſterne Seas, and happening to lodge neere vnto the ſaid Lord Embaſſadour of Lisbone, gathered diuers Plants thereof out of his Garden, and ſet them to encreaſe here in France, and that in greater quantitie, and with more care, than anie other beſides him, hee did ſo highly eſteeme thereof for the exceeding good qualities ſake. The Spaniards call it Tabacco. Some call it the Holy hearbe, becauſe (as I thinke) of his holy and maruellous effects. Verie manie haue giuen it the name of Male Petum, to know it from the Female Petum; which is (in truth) the proper name of the hearbe, vſed by them of the Countrey from whence it was brought: Notwithſtanding, it were better to call it Nicotiana, after the name of the Lord which firſt ſent the ſame into France, to the end, that wee may giue him the honour which hee hath deſerued of vs, for hauing furniſhed our Land with ſo rare and ſingular an hearbe. And thus much for the name: Now liſten vnto the whole Hiſtorie. *The hearbe of Queene-mother.* *The hearbe of the Great Priour.* *Tabacco.* *The Holie hearbe.*

Maſter *Iohn Nicot*, one of the Kings Councell, being Embaſſadour for his Maieſtie in the Realme of Portugall, in the yeares of our Lord God, 1559, 1560, and 1561, went on a day to ſee the Monuments and worthie Places of the ſaid King of Portugall: at which time, a Gentleman, keeper of the ſaid Monuments, preſented him with this hearbe, as a ſtrange Plant, brought from Florida. The Noble man, Sir *Nicot*, hauing procured it to grow in his Garden, where it had put forth and multiplied verie greatly, was aduertiſed on a day by one of his Pages, that a young boy, kinſman of the ſaid Page, had layd (for tryall ſake) the ſaid hearbe *Monſieur Nicot Embaſſador for the King in Portugall.*

hearbe stampt, the substance and juice and altogether, vpon an vlcer which he had vpon his cheeke, neere vnto his nose, next neighbour to a *Noli me tangere*, as hauing alreadie seised vpon the cartilages, and that by the vse thereof it was become maruailous well: vpon this occasion the noble man *Nicot* called the boy to him, and making him to continue the applying of this hearbe for eight or tenne daies, the *Noli me tangere* became throughly killed. Now they had sent oftentimes vnto one of the Kings most famous Physitions the said boy, during the time of this worke and operation, to marke and see the proceeding and working of the said Nicotiana: and hauing in charge to continue the same vntill the end of tenne dayes, the sayd Physitian then beholding him, assured him certainely, that the *Noli me tangere* was dead: as indeed the boy neuer felt anie thing of it at anie time afterward.

A matter of experience in the ease of a Noli me tangere.

Some certaine time after, one of the Cookes of the said Embassadour 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 six dressings, by the end of which, the wound was healed. From that time forward this hearbe began to become famous in Lisbone, where the King of Portugals Court was at that time, and the vertues thereof much spoken of, and the common people began to call it the Embassadours hearbe.

Proofe of it in wounds.

The Embassadors hearbe.

Now, vpon this occasion, there came certaine daies after a Gentleman out of the fields, being father vnto one of the Pages of the said Lord Embassadour, who was troubled with an vlcer in his legge of two yeares continuance, and craued of the said Lord Embassadour some of his hearbe, and vsing it in manner afore mentioned, he was healed by the end of tenne or twelue daies.

After this yet the hearbe grew still in greater reputation: insomuch, as that manie hasted out of all corners to get some of this hearbe. And amongst the rest, there was one woman which had a great Ringworme, couering all her face like a maske, and hauing taken deepe root, vnto whome the said Lord Embassadour 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 tenne daies this woman being throughly cured thereby, came to shew her selfe vnto the said Lord Embassadour, and how that shee was cured.

Proofe for Ringwormes.

There came likewise a Captaine, bringing with him his sonne, diseased with the Kings euill, vnto the said Lord Embassadour, for to send him into France; vpon whome there was some triall made of the said hearbe: whereupon, within few daies, he began to shew great signes and tokens of healing, and in the end was throughly cured of his Kings euill.

Proofe for the Kings euill.

The said Lord Embassador seeing so great proofe and triall of the said hearbe, and hauing heard say, that the late deceased Madame of Montigny died at S. *Germans* in Lay of an vlcer grown in her brests, which was turned to a *Noli me tangere*, for which neuer anie bodie could find anie remedie: and likewise, that the Countesse of Ruffe had sought for all the famous Physitians of the Realme to cure her of a Ringworme which she had in her face, and that they could not all heale it, he resolued with himselfe to send of it into France, and thereupon accordingly sent it vnto king *Francois* 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 said Embassadour had intercourse of letters by reason of the king his affaires: which Lord *Iarnac* also told 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 eye-bright by one that was stuffed in his lungs, and that he was cured thereby.

Madame of Montigny dead of a Noli me tangere in her breasts.

How Nicotiana was first brought into France.

The distilled water of Nicotiana good for a short breath.

This

This hearbe resembleth in figure, fashion, and qualities, the great Comfrey, in such sort, as that a man would deeme it to be a kind of great Comfrey, rather than a yellow Henbane, as some haue thought. It hath an vpright stalke, not bending anie way, thicke, bearded or hairie, and slimie. The leaues are broad and long, greene, drawing somewhat toward a yellow, not bearded or hoarie, but smooth and slimie, hauing as it were tallons, but not either notched or cut in the edges, a great deale bigger downeward toward the root than aboue: as you see the smooth Docke leafe is, which beareth small red seedes, and not burres; and the finer and clearer that such leaues are, the better the Tabacco is esteemed. Whiles it is young, 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 below, and putteth forth branches from halfe foot to halfe, and storeth it selfe by that meanes with leaues, and still riseth higher, from the height of foure or fiue foot, vnto three or foure or fiue cubits, according as it is sowne in a hot and fat ground, and carefully tilled. The boughes and branches thereof put out at ioints, and diuide the stalke by distances of halfe a foot: the highest of which branches are bigger than an arme. At the tops and ends of his branches and boughs, it putteth forth 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 little apple, or swords pummell: assoone as the flower is gone and vanished away, it is filled with verie small seeds like vnto those of yellow Henbane, and they are blacke when they be ripe, or greene, whiles they are not yet ripe.

The figure of Nicotiana.
The stalke.
Leaues.
Branches.
Flower.
Seed.

Roots.

In a hot countrie it beareth leaues, flowers, and seeds at the same time, in the ninth or tenth moneth of the yere, it putteth forth young sciences at the root, and reneweth it selfe by this store and number of sciences, and great quantitie of sprouts, and yet notwithstanding the roots are little, small, fine, threddie strings, or if otherwise they grow a little thicke, yet remaine they still verie short, in respect of the height of the plant. The roots and leaues do yeeld a glewish and rosinish kind of juice, somewhat yellow, of a rosinlike smel, not vnpleasant, and of a sharpe, eager, and biting tast, which sheweth that it is by nature hot, more than in the second degree, and drie in the first, wherupon we must gather that it is no kind of yellow Henbane as some haue thought.

Smell. Sauour or tast. Temperature.

Nicotiana craueth a fat ground well stirred, 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 shew any more of dung: which is likewise moist and shadowie, wide and roomie, for in a narrow and strait place, it would not grow high, streight, great, and well branched. It desireth the South Sunne before it, and a wall behind it, which may stand in stead of a broad paire of shoulders to keepe away the Northerne wind, and to beat backe againe the heat of the Sunne; it would also be defended from the toffing and force of the wind, by reason of his weakenesse and height: it is true that it will be out of the daunger of the wind, if the root be deepely taken in the ground. It groweth the better if it be oft watered, and maketh it selfe sport and jolly good cheere with water when the time becommeth a little drie. It hateth the cold, and therfore 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 layed thereupon: and when the Southerne Sunne shineth, to open the doore of the couert made for the said hearbe right vpon the said South Sunne.

How to refresh and cheere vp Nicotiana.

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 sayd Nicotiana together, and fill vp the hole againe: for it is so small, as that if you should put in but foure or fiue seeds, the earth would choake it: and, if the time be drie, you must water the place easily some fiue daies after: it may be sowen also after the manner of Lettuses, and such other hearbes, mingling the mould verie well with the seed, 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 forth, and after that it is put forth, you must keepe it both from the cold and frost, couering it in the night time, euen whiles it is young and small: and so it will be preserued and kept continually greene and beautifull. And when the hearbe is growen out of the earth, in as much as euerie seed will haue put vp his sprout and stalke, and that the small threddie roots 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 seperated, and the small and tender impes swim aboue the water, and so you shall sunder them one after another without breaking of them: and thus hauing freed them one of another, you shall plant them along the sayd wall some three foot from it, and foure foot euerie one from another: and if the earth neere vnto the wall be not so good as it ought, you shall helpe it by such manner of batteling as hath beene spoken of, and shall close vp all your care about the plants so remoued 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 way to remoue Nicotiana.

At what time Nicotiana must be sowen.

As concerning his vertues seeing it is hot and drie in the second degree, as his biting and sharpe kind of tast doth declare: we cannot doubt but that it is good to cleanse

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, and inueterate and cancred vleers, hurts, ring wormes, and exulcerated scabs, what maligne qualitie soeuer is in them, Kings-euill, clouds of the eyes, conlusions, impostumes, stingings of liuing creatures, rednesse 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 ripenesse, or being kept drie in the time of Winter, or in powder, when they are dried and made in powder: as for the way to keepe them, we will speake thereof hereafter.

The leaues of Nicotiana are the best part of the same.

And to speake particularly of the effects of Nicotiana. The cold and windie paine of the head, armes, and legges will be holpen, if you lay vpon the griefe oftentimes the greene leaues of Petum somewhat dried ouer the fire. the tooth-ach is stayed by rubbing the teeth with a linnen cloth that hath beene dipt in the juice of the said hearbe, and by putting into the tooth a pill of the leaues of the same hearbe. The wounds of the armes, legges, and other parts of the bodie how old soeuer they be, will be throughly siccatrized, if you wash them first with white wine or vrine, and afterward wipe them verie cleane with a linnen cloth, and by and by after put thereupon one or two greene leaues well stamped with the juice, or the juice 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. The Indians vse it to comfort the feeble & not digesting stomach, first rubbing it with oyle oliue, and then applying thereupon one or two leaues somewhat dried and made pale ouer the fire: it is in vse also among the Indian Canibals against poyson, wherewith they vse to annoint their arrows when they go to shoot, and this poyson will kill by and by if bloud be but drawne: for when they go to warre, they carrie in one Harts foot of that poyson, and in another of the juice 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 Sauinam, and as their custome was to cure their poysoned wounds with sublimate, so they not finding store thereof sufficient, were made to applie vnto their wounds, the juice drawne out of the leaues of this hearbe, which shortly after tooke away the paine and venime thereof, and so they became whole: the proofe of this thing hath also beene made in Spaine sundrie times; and amongst others, by the Catholicke King himselfe, who to make triall of this hearbe, caused the wound of a dogge to be rubbed with sublimate, and then presently after to be applied the juice of Petum, together with the substance and all. This same remedie may serue against the bitings of mad dogges, so that it be vsed within a quarter of an houre after. The decoction of the leaues boyled in water, and made into a syrope with sugar, or into a Iuleb or Apozeme, and taking euerie morning the quantitie of two or three ounces, remedieth the difficultie of breath, old cough, and causeth to spit out grosse and slimie humours, so that the partie before he vse this decoction, haue beene vniuersally purged, by some purgatiue medicine: the juice and drosse of the said leaues stamped in a morter, 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 oyntment appropriat vnto such diseases. The same remedie serueth for the paine of the stomach, the paine of the bellie, 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 paynes of the matrix, the said leaues applied vnto the nauell in manner aforesayd:

Ache of the head, armes, and legges.

A weake stomach not able to digest.

Difficultie of breathing.
An old cough.

The spleene slopt and hard.

Paine of the stomach.
Colicke.

Paine of the matrix.

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 subject vnto the disease of the Mother, should haue the same alwaies readie. Some hold it for a singular remedie against the gowt, to chaw euerie morning fasting the leaues of Petum, because it voydeth great quantitie of flegme out at the mouth, hindering the same from falling vpon the joynts, which is the verie cause of the gowt. If you put the leaues amongst hot embers for some space, and afterward taking them forth, applie them (without shaking off the ashes from them) vnto his belie that hath eat and drunke much, you shall asswage his swelling fulnesse, and keepe him from surfetting. The juice of the leaues of Nicotiana stamped, clarified, and mixt with melted sugar of the forme of a syrope, being taken in the morning killeth and casteth out wormes: but therewithall you must lay vpon the parties nauell some of the leaues bruised, stamped in a mortar, and wrapped in a linnen cloth, and let it be presently after he hath taken a clyster of milke and sugar. All aches of the joynts comming of a cold cause, all swellings, tumours, and impostumes comming likewise of cold and windie causes, all kibes on childrens heeles, as also exceeding great itches are healed by applying the leaues of Petum. The juice of Petum layed vpon a carbuncle how pestilent or venimous soeuer, doth heale and cure the same presently: it doth the like in old vlcers, though they pierce vnto the bone, if you continue the vse of it so long as there shall be any need: for it maketh the flesh to grow againe, and consumeth the filthinesse of the vlcers: which I my selfe haue proued in two vlcers of the nose, caused of the French disease, out of which the juice of this hearbe caused great store of vvormes to come. Greene vvounds (prouided that they be not verie deepe) are healed in a day, by putting into them of this juice, 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 juice into them, and the drosse thereof aboue and vpon them with a linnen cloth dipt into the juice: also for the more briefe and speedier curing of them, it were good that they were washed within and without with the same juice.

Surfetting.

To kill the wormes.

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 doore, not in the Sunne, Wind, 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 take of the best Tabacco or Nicotiana, I doe not meane such as groweth and is frequent with vs, but that which is naturally good, as hauing all his rights both of Sunne and soyle, and is brought from the Indians, of which there are sundrie kinds according to the natures of the countries, and the plantation of the herbe, some in leafe, some in roll, and some in ball, and twine it verie hard as you can together, then with a knife shred it verie small, and spreading it vpon a cleane sheet of paper, drie it ouer a gentle fire made of charcoale or other fuell that hath no stinke nor smoake, then when it is cold, you shall put it into a Tabacco pipe that is verie cleane or new burnt (the figure whereof is needlesse to relate, because the world is so much inchaunted therewith, that not any thing whatsoeuer is halfe so common as this is now a daies) and hauing stopt it hard into the pipe, you shall with a Waxcandle, or other sweet flame, set it on fire, and then sucking and drawing the smoake into your mouth, you shall force the fume forth at your nosthrills, which fume will (if the head be well couered) make that you shall auoid 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 conjecture 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, old cough or rheumes, in which caseth it maketh them to auoyd infinite quantitie of thicke and slimie flegme. The disease of the Mother, otherwise called the Suffocation of the Mother, is healed by taking this

Wherefore the dried leaues of Nicotiana are good

To drie Nicotiana.

The dropsie.

The suffocation of the mother.

this fume into the ſecret parts. For the head-ach 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 ſweet 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 appropriat vnto the diſeaſe. Such as are ſubiect vnto ſwounings are by and by brought againe, by taking at the mouth or noſthrills the fume of the ſaid leaues burnt, in reſpect whereof Indian women keepe this hearbe verie carefully, becauſe they be ſubiect to ſwounings. Which is more, the inhabitance of Florida doe feed themſelues a certaine ſpace with the fume of this hearbe (whatſoeuer a certaine new Coſmographer ſay to the contrarie, who ſeeketh by his lyes 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 hearbe. And the truth hereof we gather from them which haue beene in the countries of 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 reeds, or of ruſhes, at the ends 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 thereupon that they find their hunger and thirſt ſatisfied, their ſtrength recouered, their ſpirits rejoyced, and their braine drencht with a delightſome drunkenneſſe: as alſo to auoyd out of the mouth an infinite quantitie of flegmaticke water. But in that the fume of this hearbe maketh men ſomewhat drunke, ſome men haue thought it to be verie cold, and by that reaſon a kind of yellow Henbane, which it reſembleth much in his ſtalkes, leaues, cups, and ſeed, as we haue ſaid before: but we muſt know that the fume of this hearbe doth not make drunken ſo quickly, and withall, that this kind of drunkenneſſe doth not proceed of exceſſiue cold, 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 proued and tried them in many diſeaſes here in the countries of France, to the great comfort of the ſicke: they alſo which come from the Indies, and new world of Florida, haue confidently auouched vnto vs to haue proued and tried the ſame in themſelues, hauing beene wounded and hurt, when they made warre in the countrie againſt the rebellious and trecherous Indians: who likewiſe affirme, that much good is ſpoken of this hearbe, 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 know are reuealed vnto them. And that it is ſo, the ſauage and bruitiſh Indians being accuſtomed to aske of their Prieſts the ſucceſſe and euents of things to come, is proued by the Prieſts: 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 trance, and become as men without life ſo long as vntill the hearbe haue ended his operation: and then they riſe vp halfe giddie, and ſo make anſwer vnto whatſoeuer any man hath demaunded of them: but we muſt thinke that it is more probable, that ſuch like diuination doth proceed of ſome diueliſh art, rather than by 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 eyes, 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 companie 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 burn the leaues of the ſaid plant, and take the fume at their mouth and noſthrils,

Head-ach.

Swounings.

The fume of Nicotiana aſſwageth hunger and thirſt.

That Nicotiana doth not make drunke.

Diuination by Nicotiana.

and verie presently after they become as it were deprived of sence, falling to the ground in a trance. It is certaine that many Philosophers doe deliuer that there are certaine plants which haue the like force and properties, making men to dreame of an infinit sort of things, and those well pleasing to the spirit and vnderstanding of man: furthermore they assure vs that if a man take of the juice 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 night-shade, a dram of the root whereof, as he saith, drunke with Wine, doth bring dreames of vaine things; but not altogether vnpleasant: but taken the double quantitie it maketh mad, and taken foure fold it killeth: if any man eat Anise-seed going to bed, he shall haue pleasant dreames in his sleepe: but and if he eat turneps, they will procure him noysome and troublesome dreames.

Mad night-shade.

Anise-seed. Turneps.

Furthermore, the vse of the leaues of Nicotiana, as well greene as drie and made in powder, are distilled in a glasse lembecke, the water whereof is not lesse singular than the juice 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 oyle 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, than the leaues, juice, powder, or distilled water of Nicotiana, forasmuch as quintessences drawne out of simples, are the subtile spirits thereof, wherein lyeth the pure force and sincere qualities of the matter from whence it is drawne: we will not speake here of the manner of distilling of the Chymicall oile, and salt of Nicotiana, but reserue the same for our booke of secret remedies.

The ointments of Nicotiana are made diuers waies, notwithstanding that this only 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, bray them in a mortar of wood or marble, with a woodden pestell: afterward melt halfe a pound of sweet seame prepared (that is freed from all manner of filmes and skinnes) in a brasen vessell, putting to the said seame the drosse and juice of Nicotiana stampt, as hath beene said, let it all boyle together 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 boyling water) vntill you see all the watrie part of the juice euaporated, and that the rest haue got the consistence or just thicknesse of the forme of an vnguent. The second ointment is such: melt and boyle together perrosin, new wax, and turpentine vpon a coole fire in a brasse skellet, of each three ounces, and when it is all melted and shall begin to froth, take a pound of the drosse and juice of the leaues of Nicotiana, so purged, chosen, and stamped, as hath beene said: set them to boyle with the wax, perrosin, and turpentine, the space of fiue or sixe houres more or lesse, at a small and gentle fire of coales, vpon a treuet, or in a double vessell (that is to say, in a cauldron full of boyling water) stirre the same continually vntill the watrie parts of the juice be consumed and spent, and the rest boyled thicke like an oyntment: after that, straine it through a thicke canuasse, and put it againe into the skellet, with halfe a pound of Venice turpentine, not suffering it to boile, but stirring it verie well: let it coole, and put it into pots for your vse. Some in dispensing the first and second ointment, put not in the drosse of the stamped herb, but strayning it through a thicke strainer, reserue onely the juice, which seemeth to me to be the better. As concerning the properties of these two oyntments, the first is better for wounds onely, cancrous vlcers, ringwormes, skurfes, and fire faces, because it hath more force to clense and resolue, which is the principall and chiefe propertie of Nicotiana, not being hindered or restrained by the mixture of other ingredients.

What is meant by Maries-bath.

The second oyntment.

dients. The other Ointment is better to incarnate and consolidate all sorts of wounds, to resolue impostumes and swellings, to mitigate paines, and other effects.

Besides these two sorts of Ointments, there may be made a verie excellent Balme of Nicotiana: Distill the leaues of Nicotiana with the iuice pressed out (the drosse being cast away) put it into a Glasse-vioil, with like quantitie of common Oyle: set this Vioil, well stopt with gummie Wax, in the Sunne a long time, and tye vpon the top of it a strong parchment; or else set this Vioil in a Cauldron full of boyling water, or burie it in Horse dung, and let it stand there full fortie daies, changing the dung sometimes: the fortie daies expired, you shall find a Balme in the Vioil, 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. *An excellent Balme made of Nicotiana.*

Lastly, you shall vnderstand that the ashes of this Nicotiana is of no lesse soueraigntie and medicinall vse than the leafe before rehearsed: for after you haue taken the fume of the Tabacco, and that the powder is burnt into ashes, you shall saue those ashes in a close boxe, for they will cure anie greene wound whatsoeuer. They are also most excellent for the skinning of anie soare or vlcer: and if you steepe them in white Wine or Vrine, and make a lee thereof, (but Vrine is the better, because it hath a certaine seewe oylie substance in it, which comforteth and suppleth soares) and with this lee if you bath anie old and inueterate vlcer, it will take away the itch, cleanse it, and heale it. If with these ashes also you rub your teeth, it will make them white, smooth, and preserue them a long time from rotting.

See here (friendly Reader) the Historie of Nicotiana, euerie where so much spoken of and esteemed, and that according vnto the verie truth, so farre as possibly I could find it out, following the report and intelligences which I haue receiued of the Portugals, Spaniards, and our owne Countreymen, which haue come hither these last yeares past from out of Florida (which is the naturall soyle of the same) as also such experiments as haue beene made here in France of the faculties and vertues thereof, altogether like vnto those which that Plant which Florida (as the naturall Countrey thereof) doth bring forth and nourish: Which if you haue not alwayes found in euerie 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 counterfeited properties and vertues which wee haue deliuered and reported of it; but rather accuse the small care which is had in the planting of it here 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 here in France, by reason of the coldnesse and inequalitie of the ayre) and that you husband it likewise as carefully as the Indians doe, that then you shall perceiue, that what I haue here set downe of it, is verie faithfull and true.

Chap. XLV.

Of female Petum.

THe experience (which is the Mistresse of Arts and Sciences) which hath beene had of the faculties and vertues of this hearbe, which are almost like vnto those of male Petum; the shape of the root, stalke, leaues, flowers, and seed of the same, which is but a verie little one, and in littlenesse onely differing from the figure and colour of male Petum, doe giue vs some light and reason why wee should call this hearbe by the name of female Petum; and 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 seed, it happen to shed the same vpon the ground where it is planted and hath put forth, then this ground the *Female Petum groweth of the seed of the male*

yeare

yeare following will not faile to bring forth the female Petum. And which more is, if you sow the seed of male Petum in a ground that is not hot, fat, well turned, and well manured, but rather which is leane and sandie, in stead of bringing forth male Petum, it will bring forth the female Petum, and that in such aboundance, as that you shall hardly rid the ground of it, but that it will grow euerie yeare 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 wee are accustomed to doe in manie other Hearbes and Plants, hauing betwixt them some resemblance and affinitie, as well in their vertues, as in their figure, proportion, and colour. It is true, that the female Petum hath a lesse stemme, and lower; the leaues not so great, and shorter, not so rosinie, nor so manie; the flowers not so much vpon carnation, nor so large spread; the seed more red; the branches not so long, nor so high, neither yet so manie, as the male Petum putteth forth. And to vtter my iudgement, and make a particular description, this small female Nicotiana hath his stemme or stalke of two foot height, or thereabout, cornered, slimie, and woollie, set by distances with long leaues, large, pointed, and sharpe, soft, vnctuous, hoarie, not notched, and of a browne colour. It bringeth forth, as it were, a nosegay at the top of the stalke, and vpon the branches, from betwixt the leaues, two flowers of a pale yellow, which are like vnto the Cowslip flowers: and when they be fallen, there remaine and stay behind cups, and, as it were, greene pots, inclosed in small hoarie skinnes, open aboue, and hauing fiue or sixe points, but such as pricke not. Within the cup is contained a seed, which is verie little, of a browne tawnie colour: the root is tender and fibrous. Where the seed hath beene once sowne, it soweth it selfe againe, and encreaseth and multiplieth mightily. This sheweth manifestly, how greatly they are deceiued, which call this hearbe Priapeia, as though it were a kind of Satyrion, which commeth neere to that which is called male royall Satyrion: for this hearbe, which we call female Petum, doth nothing resemble Satyrion, neither in root, colour, figure, disposition, nor properties. For female Petum hath manie small rootes, a iointed stalke, manie branches, manie long and large leaues, being hot and drie, as is the male Petum: but Satyrion hath fewer rootes, but grosser, a stalke without anie ioint, no branches, fewer leaues, flowers onely 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 heat. Monsieur *Gouppil* and *Dodoneus* haue spoken more wisely, saying, that it is a kind of Henbane, bearing a yellow flower.

Female Petum is not Priapeia.

The vertues of female Petum.

As concerning the vse and remedies which female Petum affoordeth, they are, as it were, like vnto the vertues of male Petum: for it seruetb in stead 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, seed, iuice, drosse, and distilled water, in oyntments and balme, prepared after the manner that wee 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 the manner aforesaid, is a remedie not second to anie other in the curing of the Cankers of the breasts, and other parts; and that the iuice thereof applyed, is singular against the falling of the haire, called *Tinea*, the head being first shauen; and that the iuice, mingled with mans grease, and applyed, assuageth the paine and inflammation of the Gout; and that taken inwardly, it purgeth vehemently: and that therefore it is to bee auoided and shunned, vntill such time as his correctiue be knowne, and the vse thereof in Purgations receiued.

The leaues of female Petum for the bloudie flux.

CHAP. XLVI.

A briefe discourse of the root Mechoacan.

WIthin certaine yeares past, the Indians, Portugals, and Spaniards haue sent vs the root of an hearbe, which they call Mechoacan, which hath vertue to purge the humors in the same sort that our vsuall purging medicines. Our Countrey men, giuen to admit of and easily receiue new things, doe greatly esteeme of it, euen vntill this present: We will lay downe the historie 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 root is called Mechoacan, of the name of the Region or Countrey where it groweth, which is a Prouince of New Spaine (situate in the West Indies, or New World) called by the inhabitants Chincicila, and by the commandement of the Catholike King, Mechoacan: Which Prouince aboundeth with Gold, Siluer, Cattell, Corne, Fruits, exquisite Plants, mynes of Mettall and Stones, and all sorts of good things; where also the people are well coloured, full of vigour, strong of bodie, and of a perfect health, and that by reason of the Ayre, which is more wholesome there than in anie other place of the Indies. The occasion of the name rose thus: The Spaniards, Lords 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 Physitian, 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 root came in great request throughout the whole Prouince: and from thence the prayses thereof were carried and published throughout all Spaine and Portugall; and thereupon it hath kept the name of the Prouince of Mechoacan. The fame thereof is likewise come into France by the meanes of Merchants, desirous of gaine, who haue brought it vs hither from thence. Some call it Rhamindick, because it seemeth that it hath the like propertie of attracting and purging flegmaticke and serous humors, which the East Rhubarbe hath to attract and purge cholericke humours.

The reason why it is so called.

Rhamindicke.

This root is not brought vnto vs whole, but in pieces and round slices, whereinto it is diuided with kniues, or with hands, so soone as it is drawne 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 manie circles, without anie tast, except such as meale is wont to haue: for it is neither sharpe, nor sweet, nor bitter; and smell it hath none, neither is it anie thing pithie.

The markes of Mechoacan.

The best is that which is whitest, most close in it selfe, well set and ioyned 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 old grayish, or blackish, and, as it were, wrought with diuers colours.

To chuse the best Mechoacan.

This is the root of a Plant, which is a kind of great Bindweed, called in French *Liseron*, 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 anie manner of aid: it hath a stalke or trunke mixt of diuers colours, as deepe yellow, greenish, reddish, somewhat of the colour of Ashes and Medlay, commonly called the Lyons colour: the leaues are somewhat moist (there being within the flowers, as it were, clappers, with

with round knots at the vpper end, the sharpe-pointed end being toward the stalke of the foot) round, and of a darke greenish colour. It beareth a fruit like a Grape, as bigge as a Coriander seed, and it is ripe in the moneth of September, and in the Spring following. It putteth forth neere vnto the rootes small siences and sprouts, which fall to creeping vpon the earth, if they be not borne vp with some pole, about which they may wrythe and cast themselues round. The seed is like vnto that of Bindweed. For your better assurance in all this that hath beene said, 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 painefull Apothecarie, both which dwelling at Paris, haue enriched our Countrey of France with an infinite number of rare, exquisite, and verie singularly qualified Simples. This root is verie like to the root of wild Vine, as well in colour, rinde, and wrinckles, as in thicknesse; in consideration whereof, some haue called this Plant white Vine: but and if you tast the one and the other root, you shall find them somewhat differing: for Mechoacan, if you chew it, is sound without anie tast, except it haue a mealie tast, for it is nothing sharpe, but hath some small astringent and binding qualitie. Brionie, greene or drie, is biting, and leaueth behind it, in the palate and roofe of the mouth, a sharpe and displeasing tast: 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 ayrie, subtle, 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, chiefely 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 choice humors: that is, it purgeth, by some similitude and familiaritie of substance, flegmatike and serous humors, but flegmatike especially; then secondly, cholericke; and last, adust and melancholike humours: and those not onely from the stomacke, liuer, spleene, and guts, but also from the head, parts about the breast, and ioynts: in regard whereof, it is good against old Agues, and long diseases, but especially the Iaundise, Dropsie, Gout, Kings euill, Wolues, flegmatike tumours, head-ach, obstruction of the Lungs, shortnesse of breath, the suffocation of the Mother, Colicke, paine in the Flankes, retention of Vrine, Costiuenesse, Agues of diuers humours,

mours, 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 anie 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 behind it some notable heat: but it is verie 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 behind. 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 verie 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 way to prepare it is on this manner: You must take the weight of a dramme, or a dramme 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 whome 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 head-ach; or in the water of Mother-wort, for the diseases of the Matrix, and so forth of others: afterward, the next morning, you must drinke it, the liquor and powder all together: there may further, at your pleasure, anie syrrup that you will, be mixed therewith, if so be you know it meet and conuenient for the disease in hand. It is true, that we haue often proued, namely, that it endureth no mixture of syrrups, or such other things, no, nor of Cinnamon (if the ill disposednesse of the stomacke doe 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 grossely beat (as we commaund 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 encreased, vntill it come to three or foure drammes, for otherwise it will worke no effect; in as much as experience hath taught vs, that the purging qualitie of this root lyeth not so much in the subtle 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 drammes onely of Rubarbe in substance, and the double in infusion. This thing may happen vnto this root, and to that Rubarbe of the East, vpon their longer staying in the stomacke, being taken in substance, than 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 said powder with stamped Almonds and Sugar, which will be verie fit to purge young 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 stay long there to heat it: or else they may be made greater, when there is anie purpose that the said powder should draw from the ioints and outward places.

The preparing of Mechoacan for to vse.

The infusion of Mechoacan.

Marchpanes of Mechoacan.

Pilles 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 loathsome to the tast, nor horrible to the smell, neither yet hath it anie displeasing colour; vnto all which the other purgatiues, for the most part, are more or lesse subiect. It procureth not anie loathing vnto the stomacke: it causeth not anie wringings in the bellie; neither prouoketh it anie vomit: It purgeth so gently, as that it worketh not anie weaknesse or relaxation, or anie other such passion vnto the stomack: it resolueth not or looseneth the naturall power; neither doth it trouble or put the bodie to paine: but contrariwise, it maketh it strong & lustie, as though indeed it were no purgatiue or medicine, but a familiar & acceptable thing to our nature; which

The commodities of the vse of Mechoacan.

which thing falleth not out ordinarily in other medicines: so that young children, old 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 bodie 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 cold 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 day in such as vse it rashly, and without preparation: and so also, with them, the thing that of it selfe is verie good, doth get an ill name, but against all right and equitie, seeing it worketh good and laudable effects, being taken the bodie first prepared. When it is taken, the partie must keepe himselfe from cold, wind, much eating or drinking, and other excesse: he may sleepe an houre presently after he hath taken it, but not after that it beginneth to worke: there is no need for him to take anie broth two or three houres 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 bound, 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 indeed the greater part of them grow rather of the qualities of the humours, or of the euill dispositions of the bodies of them that take it, than of anie maligne qualitie in the root 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 aboundance of superfluities and fretting humors contained in the same, rather than of the powder which doth strengthen and comfort the stomacke by his astringencie: notwithstanding, it shall not be amisse to meet with this vomiting, to put into the infusion of this powder a little Cinnamon. It is held for certaine, that if anie 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 proued this not to be alwaies true. I further confesse, that it leaueth some heat and drinesse behind it when it hath wrought, which appeareth by the great alteration that is remaining: but this is no other thing, than that which other purging medicines likewise haue; for they being all of them hot, doe shew themselues therein: but this heat may easily be corrected by the mingling of cold things. Suppose likewise, that such heat may as soone come of the hot and drie humor: as it happeneth in hot burning Agues and true Tertians, especially if the sicke partie be of youthfull and flourishing yeares, of a hot and drie temperature, in Summer, in a hot Region, and when the present constitution of the ayre 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 Physitian, for feare of running into a greater mischiefe. I confesse further, that it leaueth a costiuenesse behind it, in such sort, as that some are six daies before they can goe to stoole after: but herein it deserueth no more blame than other like purging medicines, and especially Rhubarbe: Notwithstanding, to meet with this, you must take a Clyster the day following, or eat some Broth, or Plumme pottage, which may loosen the bellie.

The day of the taking of it.

The day after the taking of it.

Costiuenesse.

Symptomes happening vpon the vse of Mechoacan.

Loe here (friendly Reader) what thou art to iudge of the root 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, doest prouide thy selfe for thy vse accordingly: as namely, if thou buy that which is new, sliced into round pieces, white, dustie, and which, quantitie for quantitie, doth ouer-weigh other roots: And if thou findest anie one to be somewhat blacke and worme-eaten, by that thou mayest know that it is old, and that therefore thou oughtest not to vse it. It is somewhat hard, and quickly rotteth, for it will hard and scant endure three yeares, if it be not hidden in Millet, or wrapt in a Linnen Sere-cloth, or couered

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ouer with Pitch or Rosin. Diuers and sundrie other hearbes there are of rare and soueraigne qualitie, for the vse of man, in medicines; but their order, sowing, nourishing, and planting, differeth nothing from them alreadie rehearsed: onely, according vnto the opinion of *Serres*, there is another speciall regard to be taken to these medicinall hearbes; which is, to plant them in those coasts and corners of your Garden which is most proper to their natures, giuing them that Sunne, that Shade, and that Wind, which is most proper and behoofefull for them: for some take delight in the Easterly quarters, some in the West, some in the North, and some in the South: as was most curiously obserued by Master *Richard de Beleuall*, Physitian to the last King of France; who, at his Maiesties commandement, planting a Physick-Garden in Montpelier, gaue vnto euerie hearbe his due place so rarely and artificially, that neuer anie was seene to flourish or encrease in more rare and aboundant manner, neither to haue greater strength or operation in their working, to the great admiration of the learned, and his high renowme in the workmanship. To proceed then to the naturall Clymats in which manie of these Physicke hearbes naturally delight, you shall vnderstand, that those hearbes which delight in the East, and loue to behold the Sunne at his first arising, is first Angelica, of which there are two kinds, the one called Garden Angelica, the other Wild Angelica: both may be sowne either before or immediately after Winter. It is soueraigne against all Infection, and therefore much sought after in the time of Pestilence and Mortalitie: it also healeth the biting of Serpents, or mad Dogges, and dryeth vp those naughtie humours which offend the stomacke. Then Valerian, of which wee haue written before: and also Argentine. Then Dogges-tooth, which must be sowne on good earth almost in anie moneth: the decoction whereof taken, with great reason helpeth Feauers, and kill the Wormes in children. Then Sophya, otherwise called Talietrum, which may be either sowne or planted in the Spring, or in Autumne: The seeds of it being beaten to powder, and drunke in Wine, is excellent for all euacuations and clearings of the bloud: also it helpeth women in Child-bearing. Then Oxe-eye, which would be sowne at the Spring vnder the eauings of houses, for it loues shelter. The hearbe is good to be drunke for the Iaundise: and being made into a Cataplasme, it dissolueth all manner of hardnesse: and the decoction thereof will occasion Vrine. Then Centaurie, which first tooke his name from *Chiron* the Centaure, when he was wounded with a poysoned shaft. It requireth a well-laboured earth, and verie fruitfull, according to some opinions: yet it is oftest found in Wood-land Countreyes and barren places; whence it seemeth, that a reasonable earth will beare it: and it may be sowne or planted either in the Spring, or in Autumne: it is a great purifier of the Bloud, and verie soueraigne against Wormes: it healeth old Vlcers, especially the powder thereof: and the decoction thereof is excellent against Rheumes and Fluxes. Then Millefoile, which desireth rather a moist than a drie earth, and must be planted thinne, for it spreadeth much: it is soueraigne against the Dissenterra, and against all excessiue euacuation of bloud, in what part soeuer it be. Then Brassula *Maior*, or *Minor*, which is an hearbe of quicke and easie growth, especially if it be planted against a wall or house side, and may be sowne in the Spring, or planted in Autumne: it is good for the stanching of Bloud, and it cureth most inward Vlcers. Then Bedegaris, or white Thorne, which desireth a good earth, and may be sowne in the Spring: the decoction of it is excellent for the Tooth-ach, or for a weake Stomacke, for the Collicke, or Flux of the bellie. Then Crespinet, or Poligonon, which euer groweth best in a moist ground. It is good for the Stone, the Gout, Flux of the bellie, or paine in the Eares. Then Ebulus, which may be sowne in the Spring, or in Autumne: it purgeth Choler and Flegme, being eaten in pottage: and the decoction thereof taketh away the paine of the Gout, and helpeth the French sicknesse. Mercurie is of two sorts, male, and female: it desireth a ground that is well tilled: it may be sowne in the Spring time: the decoction thereof purgeth Choler and all superfluous humours: it also looseneth the bellie, chiefely if it be ministred in Glyster, and prouoketh the termes in Women. Then *Cardnus Stellatus*,

Hearbes of the East.

Stellatus, which is a verie delicate Plant, and groweth verie easily, either from the root, or from the seed, in the Springtime, or in Autumne: The chiefest vertue of this Plant consisteth in the seed, which being beaten to powder, and drunke with Wine, prouoketh Vrine, and expelleth Grauell. Lastly, *Venus* haire, which groweth best neere vnto Fountaines and Springs in Countries that are rather hot than cold, for it loueth neither stormes nor wind: it is best to be planted in the Spring. This hearbe purgeth well: it breaketh the Stone, and auoideth Grauell: it is good against the bitings of venimous Beasts, and prouoketh the termes in Women: it stauncheth Bloud: and the decoction thereof is excellent for the yellow Iaundise.

Hearbes of the West.

Those hearbes which delight in the West, and loue the declining of the Sunne, are first the hearbe Scabious, which delighteth in a reasonable tilled earth, rather moist than drie, and hauing his seat according to his nature, prospereth verie abundantly. The best season either to sow or plant it, is in the Spring time, and it endureth manie yeares without aid or replanting: all parts of it is verie medicinall, both the root, stalke, leaues, and flowers: The water distilled of this hearbe, is good against all Venimes or Poyson taken into the stomacke, and also against all inward Infection, Itch, Byles, or Vlcers. Then is Agrimonie, of which we haue spoken before. Then Serpentar, which is so called through the likelyhood it beareth of a Serpent: and of it there are two kinds; one great, the other small. It desireth a verie good earth, and somewhat moist, and may be sowne or planted in the Spring time. The roots of this hearbe is excellent for all malignant Vlcers: a decoction of the leaues thereof is good for Womens termes, and the leaues thereof keepeth Cheese long from rotting. Then Onos, which will grow in anie earth, and rather in a barren than a fertile, and is best to be set of the root, either in the Spring time, or in Autumne. It is soueraigne against the Stone, and prouoketh Vrine speedily: and a decoction of the roots thereof taketh away the paine in the teeth. Then Cinquefoile, which groweth almost in euerie place, and may be planted in anie season: the decoction of it being gargled, or held long in the mouth, taketh away the paine of the teeth, and heales anie Vlcer in the mouth: it is also good against anie Infection, or pestilent Ayre. Then Sellodnie, of which wee haue spoken before. Then Staphisagria, which desireth a good ground, yet euer to be planted in the shadow, and that principally about the Spring time: It is good against paine in the Teeth, Rheumes, and other Obstructions, which grow from cold causes. Then Goats leafe, which will grow euerie where, if it be not annoyed with wind, and may be sowne or planted either in the Spring, or in Autumne, and is exceeding good for the stone. Then ground Iuie, of which we haue spoken before. Then Tussilago, or Colts foot, which groweth best in watrie or moist places, and would euer be planted in the Spring time, or in Autumne: it is verie good against infection, and against all straitnesse of breath: also the smoake or fume thereof being taken through a small tunnell in at the mouth, it cureth all infirmities of the lungs. Then Salicaria, or Lisimachus, which receiued the name from the King *Lisimachus*, who first made vse of that hearbe: it loueth to be planted neere vnto Riuers, either in the Spring time, or in Winter: it is good against the Dissenteria, or to staunch bloud, either being vsed in the leafe, or in powder. Lastly, Vlmaria, which loueth to be planted in low and shadowie valleyes, a great deale more moist than drie, and would be planted chiefely in Autumne: The decoction of it purgeth and cleanseth the bodie of all flegme, whether it be sharpe or grosse: it helpeth the Falling sicknesse: the powder either of the roots, or the leaues, stayeth the flux of the bellie, or the issue of bloud: and the distilled water easeth all paines, both inward and outward.

Hearbes of the North.

Those hearbes which affect the North, and delight to endure the blasts and nippings of those colder ayres, are first Gentiana, of which we haue spoken before. Then Cabaret, or Asarum, which neuer groweth so well from the seed, as from the plant: it asketh little cost in tillage, and beareth flowers twice a yeare, that is to say, both in the Spring, and in Autumne: it cureth the paine in the head, and assuageth the

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inflammation and anguish of sore eies: it is good against Fistulaes, the Gout, and Sciaticaes. The powder of the root prouoketh Vrine, and stayeth the menstruall Flux: it helpeth the Dropsie, and putteth away both the Feauer tertian and quartane. Then the Golden rod, which onely groweth from the seed, and would be planted in a good soyle in the Spring time: it is good against the Stone or Strangurie: it bindeth vp Vlcers, and healeth Fistulaes. Then the hearbe which is called Deuils-bit, it desireth but an indifferent earth, rather moist than drie, and where the Seed often fayleth, there the Plant neuer doth, if it be set in the Spring time. It is good against bitter griefes, as those which proceed from choler, and against pestilent tumors: against Lice in childrens heads, and such like. Then Betonie, of which we haue spoken before. Then Harts-tongue, which onely groweth best from the root: it is to be planted in the moneths of March and Aprill, in a fat earth, yet the moister, the better: it helpeth all oppilations, and cureth those which are troubled with a quartane Feauer. Then the hearbe Dogges-tongue, which desireth a light blacke mould, yet but reasonably tilled: it may be sowne or planted in the Spring time: it is good to cure the Hemorrhoids, and easeth all Ach in the limbes. Then Serpents-tongue, which must euer be placed in a rich earth, coole and moist, for it can by no means endure the heat of the Summer: it is best to be planted from the root in the first beginning of the Spring: there is in it much vertue for the resoluing of Tumors, and helping of Scaldings or Burnings, or other malignant Vlcers, or anie inflammations in the Eyes. Then water Germander, which delighteth most in cold grounds, enclining more to moisture than drinesse, and rather fat than leane: it flourisheth most in the moneths of Iune and Iuly, yet in such sort, that the flowers continue not aboue a day at most; for as one falls away, another rises: it is best to be planted from the root or slippe in the moneths of Februarie or March: it is soueraigne against all manner of Poysons, as Pestilence, or the Dissenteria: it prouoketh Vrine, and the termes of Women: it cleanseth Vlcers, and reuiueth all benummed members. Then Tormentill, or Septifolium, which loueth a darke, waterish, and shadowed earth, yet that which is verie fat and fertile: it is alwaies to be sowne from the seed, either in the Spring time, or in Autumne: it is soueraigne against the Stone, but chiefely it cureth Fistulaes and old Vlcers: it withstandeth Poyson, and easeth the paine of the Teeth. Then Enula Campane, of which we haue spoken before. Then Persicaria, which is oftest planted from the root, in the Spring time, in grounds which are rather moist than drie. The decoction of this hearbe cureth all manner of bruises in Beasts, where the bone is not broken, onely by bathing them therein. Also the flesh of Muttons, Beeues, Veales, and such like, is kept fresh manie daies by the vertue of this herbe onely, being wrapped about the same. Then Lyons foot, which will not liue but in a good earth, fat, and fertile, yet somewhat moist, and is best to be sowne in the moneths of March or Aprill: it hath an excellent vertue for the healing of ruptures in young children. Then Eringo, which craueth a good and well tilled ground, and may be sowne or planted either in the Spring or in Autumne: it is good against the Collicke, against Grauell, or the difficultie of Vrine: it strengtheneth the Reines, and healeth the bitings of venimous beasts. The distilled water thereof is good against both quotidian and quartane Feauers: it helpeth the French disease, and stoppeth salt humors. Then lastly Feniculus Porcinus, which delighteth a great deale more in the shade than in the Sunne-shine: it would be sowne or planted either in the Spring time, or in Autumne: it comforteth much the sinewes, and strengtheneth weake backes.

To conclude, those hearbes which affect the South, is first the blessed Thistle, of which we haue spoke before. Then Veruaine, of which there be two sorts, the male, and the female: both desire to be planted from the roots in good ground, either in the Spring, or in Autumne. This hearbe is of great reputation, especially amongst the Romanes, who vse it continually amongst their Inchantments: it taketh away the paine of the Teeth, and it healeth anie old Vlcer: it is good against anie Feauer, easeth the paine of the Collicke, and expelleth Grauell. Then Saxifrage, *Hearbes of the South.*

which is of two ſorts, the great and the leſſe: they may be ſowne or planted in anie good ground which is fat and light, in the moneth of March. The chiefeſt vertue of this hearbe is, to breake the Stone, prouoke Vrine, helpe womens Termes, and to driue away all euill humours out of the Stomacke. Then Pionie, of which wee haue ſpoken before. Then Hermole, or the Turkes hearbe, which loueth a fat, blacke, and drie mould: it may be either planted or ſowne. The vertue of this hearbe is, to make one to hold his Vrine, the powder of it being taken either in Broth, or in white Wine. Then Acanthus, or Brankvrſine, is an hearbe which the auncient Architects were wont to carue, infolding and imbracing their Columnes or Pyllaſters of the Corinthian faſhion. Whence it came, that the Romanes of auncient time did call it *Marmoralia*, becauſe ſuch Pillars commonly were of Marble. It is to be ſowne in the moneths of March, or Aprill, in a well tilled Garden: his leaues are good againſt the Stone, and ſtay the flux of the bellie. Then Ariſtolochia of both kinds, of which wee haue ſpoken before. Then Perforatio, which is ſo called from the affection that it beareth to the Sunne: it may be ſowne in the Spring time in anie light earth. The ſeed of this hearbe beaten to powder, and drunke in white Wine, cureth a tertian Feauer, and eaſeth thoſe which are troubled with the Gout, or Sciatica: if the powder of it be caſt vpon Vlcers, it alſo healeth them: and the decoction of the leaues thereof prouoketh Vrine exceedingly. Then Arum, which alſo delighteth in a good Soyle, rather moiſt than drie: it flouriſheth moſt in Iune, and the leaues thereof are like the leaues of Millet; and when it is in the prime, it hath a yellow colour, like vnto Saffron: it is to be ſowne onely in the moneth of March. This hearbe is verie ſoueraigne againſt the Gout, and driueth away all flegmaticke humours: if it be bruiſed, it cureth old Vlcers, and all wounds or bitings giuen by the Wolfe: the leaues boyled in Wine, helpeth bruiſes and diſplaced members or bones out of ioint: it helpeth the Hemorrhoids alſo. Then Bugloſſe, of which we haue ſpoke before. Then Carline, which tooke the name from *Charles* the great, King of France, who by the vſe of it onely cured himſelfe of the Plague: it loueth a drie ſtonie ground, and where it may haue the ſtrength of the Sunnes beames: it muſt be ſowne in the Spring time, or elſe planted from the root. The powder of this hearbe being drunke, chaſeth away all infection, and prouoketh Vrine: it is good againſt all Conuulſions: and being made into a Cataplaſme, fortifieth and ſtrengtheneth the heart: if it be ſteeped or mixed well with vineger, it eaſeth either the Gout, or the Sciatica, being applyed vnto the place grieued. Then little Germander, which differeth not much from water Germander, onely it craueth a drie and ſtonie earth, and rather a hot than a cold: it loueth the Sunnes beames, and is rather to be planted from the root, than ſowne from the ſeed, either in the Spring time, or in Autumne: it is good againſt infection, and helpeth tertian Feauers: it helpeth the Epilepſis, paine in the head, and anie other griefes of the braine: it cureth Conuulſions, the Gout, and warmeth the entrailes. Then Nicotiana, or Tabacco, of which wee haue ſpoken before. Then Peper, which muſt be planted immediately after Winter, in a well tilled earth, and endureth long in Gardens, without anie helpe of tranſplanting. Then Camomill, which is of three ſorts, differing onely in the colours of their flowers: for the one is white, the other yellow, and the third purple: It loueth an earth cold and drie: it is beſt planted from the root or ſlippe, either in Autumne, or the Spring time: it loueth to be oft troden on, or preſſed downe, and therefore is moſt placed in Alleyes, Bankes, or Seats in the Garden. It is good againſt a tertian Feauer: and the bath which is made thereof ſtrengtheneth much weake members, and comforteth the ſinewes both of the armes and legges: it comforteth alſo the reines: The water thereof alſo diſtilled is verie good for the ſame purpoſes: and the iuice thereof mixed with womans milke, Roſewater, and the iuice of Houſleeke warmed, and a Roſe-cake ſteeped therein, with a Nutmeg grated on it, and ſo applyed vnto the temples of the head, taketh away all paine therein, how violent ſoeuer it be. Diuers other hearbes there be, which are of like natures to theſe alreadie rehearſed: but from the experience of

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these, a reasonable iudgement may find how to plant, nourish, and vse anie whatsoeuer. There be also diuers purgatiue Simples, as Rhubarbe, Agaricke, and such like, which for as much as our Soyles will not endure or beare them, I will here omit to speake of them; onely a word or two of the hearbe Sene, which is somewhat more frequent with vs, and is of that delicate, holesome, and harmelesse nature in his working and operation, that it may be tearmed the Prince, or Head of Simples. Then touching Sene, you shall vnderstand, that it beareth little small thicke leaues vpon a high large stalke: it hath flowers of the colour of gold, with diuers purple veines running vpon them. Some take the Hearbe which *Theophrastus* writeth of, called Colutea, to be Sene: but they are deceiued therein; for the one is a Tree, and no Hearbe, and the other is an Hearbe, and no Tree: besides diuers other differences, needlesse here to repeat; all which are at large set downe by *Anthonie Mirauld*, Doctor of Physicke, and a Bourbonois, in his booke intituled *Maison Champestre*. It may be planted either from the stalke or root, like Rosemarie, in anie good, fertile, and drie soyle, where it may haue the full reflection of the Sunne: and the season best and fittest for the same plantation, is at the later end of Autumne. As touching the choice of the best Sene, that hath euer the best reputation, which is brought from Alexandria in Syria, as the best of our moderne Physitians doe report: but *Iaques Siluius* saith, That the Sene which commeth out of India is not at all inferiour to it; neither that which groweth in Tuscanie. True it is, that there is not anie of them but is passing good. As for the vertues of Sene, according to the opinion of *Ætuarius*, one of the best reputed Physitians amongst all the Grecians, hee writeth, That Sene is verie excellent for the purging and auoiding of choler and flegme, without anie danger or disturbance vnto the bodie and spirits: it also purgeth most sweetly all melancholie and adust humours, being taken in the broth of a Capon: it also taketh away all inueterate and old paines in the head, and easeth all inward obstructions. According to the opinion of Master *Iohn* of Damascus, an excellent Arabian Physitian, Sene being absterstiue and binding, purgeth excellently the braine, the sensitiue parts, and organs of the heart, from all adust and melancholie humours: it also helpeth all long and tedious Feauers: it also reioyceth the spirits, and taketh away all sadnesse from the heart. A decoction made of the leaues thereof, together with Camomill, strengtheneth the braine wonderfully, and comforteth the sinewes, being bathed therein: also being taken anie way, it confirmeth both the sight and hearing. And if you find that the purgation be weake, you may then strengthen it, with mingling therewith Simples of stronger nature, as Sal Gemma, Sal India, and such like: but if you vse it for anie griefe in the stomacke, then you shall mix strong cordials therewith, and administer it either in the broth of Veale, Chickens, or Capons, or anie other flesh. And *Serapion*, another Arabian Physitian, writeth, That Sene is excellent for those which are dull of vnderstanding, for those which are subiect to frenzie or madnesse, or anie decrepitnesse of bodie, proceeding from inward weakenesse. And to all these former opinions, *Iohn Fernell*, *Iaques Siluius*, *Manard Ferrarois*, and *Andrew Mathiol*, the most excellent reputed Physitians of their times, are fully and truely consenting, as may be found in each of their Writings.

The Garden of Pleasure, or Flower Garden.

Chap. XLVII.

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 manie acres of ground well tilled and husbanded, whether it be Medow, a Plot for planting of Willowes, or arable Ground, as we haue stood vpon heretofore: but yet it is much more to behold faire and comely Proportions, handsome and pleasant Arbors, 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 pretie small Birds, which continually, day and night, doe chatter and chant their proper and naturall branch-songs vpon the Hedges and Trees of the Garden; and to smell so sweet a Nose-gay 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 cleare and pearle-like 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, doe also fill the ayre with a most acceptable, sweet, and pleasant harmonie: besides, the Borders and continued Rowes of soueraigne Thyme, Balme, Rosemarie, Marierome, Cypers, Soothernwood, and other fragrant hearbes, the sight and view whereof cannot but giue great contentment vnto the beholder.

And in this Garden of Pleasure you are verie much to respect the forme and proportion of the same: wherein, according to the opinion of *Serres* and *Vniett*, you must be much ruled by the nature of the Soyle: which albeit you may, in part, by your industrie and cost helpe, as touching the leuelling, rayfing, abating, or enrriching of the same; yet, for the most part, and especially touching the ayre, temperature, and clyme, you must be gouerned by the Soyle in which you liue. Now for the generall proportions of Gardens, they may at your pleasure carrie anie of these foure shapes, that is to say, either Square, Round, Ouall, or Diamond. As for that which is more long than broad, or more broad than long (neither of which are vncomely) they are contained vnder the titles of Squares. This is but the outward proportion, or the Verge and Girdle of your Garden. As for the inward proportions and shapes of the Quarters, Beds, Bankes, Mounts, and such like, they are to be diuided by Alleyes, Hedges, Borders, Rayles, Pillars, and such like, and by these you may draw your Garden into what forme soeuer you please, not respecting what shape soeuer the outward Verge carrieth: for you may make that Garden which is square without, to be round within; and that which is round, either square, or ouall; that which is ouall, either of the former; and that which is diamond, anie shape at all: and yet all exceeding comely. You may also, if your ground be naturally so seated, or if your industrie please so to bring it to passe, make your Garden rise & mount by seuerall degrees, one leuell ascending aboue another, in such sort, as if you had diuers gardens one aboue another, which is exceeding beautifull to the eie, and very beneficiall to your flowers & fruit-trees, especially if such ascents haue the benefit of the Sun-rising vpon them: and thus, if you please, you may haue in one leuell a square plot,

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in another a round, in a third a diamond, and in the fourth an ouall, then alongst the ascending bankes which are on either side the staires, you mount into your seuerall gardens, you shall make your physicke garden or places to plant your physicke hearbes vpon, according as the modell is most brauely set forth by *Oliuer de Serres*, and as the late king of France caused his physicke garden to be made in the Vniuersitie of Montpellier, being all raised vpon bankes or heights one aboue another, some round, some square in the manner of a goodly, large, and well trimmed Theatre, as may be seene at this day to the great admiration thereof.

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 alley, as also a hedge of quickset, hauing three doores, whose ground must be of a like goodnesse, and vouchsafed the like labour, tilling and husbanding, that the Kitchin Garden hath bestowed vpon it: and as the Kitchin Garden is to be compassed and set about with Lattise worke, and young common bordering stuffe to be made vp afterward and continued into arbours, or as it were into small chappells, or oratories and places to make a speech out of, 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, Box, Iuniper, Cypres trees, Sauin, Cedars, Rose-trees, and other dainties first planted and pruned according as the nature of euerie 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 alleys 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 peeces of stones, such as staires be made of, the whole laying of them being leuelled and made euen with a beater or mall made for the purpose: or where these are not to be gotten, you shall take of fine yellow grauell well mixt with pyble or other such like binding earth, and with it trim your alleys; others vse to take coale dust, or the ashes of Sea-coale well beaten and sifted, and with it strow the alleys, and although it be not fully so sightfull, yet it is profitable in this respect, that it keepes them from grasse and weeds, and other greenes, because nothing will sprout through the same, albeit be not troden or walked vpon of a long space. *The alleys of the Garden.*

This Garden, by meanes of a large path of the bredth of six foot, shall be diuided into two equall parts: the one shall containe the hearbes and flowers vsed to make nosegaies and garlands of, as March Violets, Prouence Gillo-flowres, Purple Gillo-flowres, Indian Gillo-flowres, small Paunces, Daisies, yellow and white Gillo-flowres, Marigolds, Lilly-conually, Daffodils, Canterburie-bells, Purple Veluet flowre, Anemones, Corne-flag, Mugwort, Lillies, and other such like, as may be called the Nosegay Garden. Also in it you shall plant all sorts of strange flowers, as is the Crowne imperiall, the Dulippos of sundrie kinds, Narcyssus, Hyacynthes, Emeryes, Hellitropians, and a world of other of like nature, whose colours being glorious and different, make such a braue checkerd mixture, that it is both wondrous pleasant, and delectable to behold. The other part shall haue all other sweet smelling hearbes, whether they be such as beare no flowers, or if they beare any, yet they are not put in Nosegaies alone, but the whole hearbe with them, as Soothernwood, Wormewood, Pellitorie, Rosemarie, Iesamin, Marierom, Balme, Mints, Penniroyall, Costmarie, Hyssope, Lauander, Basill, Sage, Sauorie, Rue, Tansey, Thyme, Cammomile, Mugwort, bastard Marierom, Nept, sweet Balme, All-good, Anis, Horehound, and others such like, and this may be called the Garden for hearbs of a good smell.

These sweet hearbes, and flowres for Nosegaies, shall be set in order vpon beds and quarters, of such like length and bredth, as those of the Kitchin Garden: and some of them vpon seats, and others in mazes made for the pleasing and recreating of the sight: other some are set in proportions made of beds interlaced and drawne one within another, or broken off, with borders, or without borders: the greatest

part

part of which sweet hearbes, as also for Nose-gay flowers, though they grow naturally, and of their owne accord, without anie labour or trauell of the Gardener, especially hearbes for Nose-gaies, yet such of them as stand in need of dressing and ordering, shall be sowne, planted, remoued, gathered, and kept, no otherwise than the pot-hearbes: but yet notwithstanding, regard must be had of the nature of euerie particular one, as shall be declared hereafter in the particular description of some of them.

Chap. XLVIII.

Of hearbes for Flowers or Nose-gaies.

March Violets.

MArch Violets, as well the single as the double, must be set of whole Plants in a well manured ground, and digged the depth of a foot, 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 euerie yeare in one and the same place; for otherwise it will beare a yellow flower, and haue verie little or no smell in it. You may make, that one and the same Violet shall beare all the colours that others doe, that is to say, white, pale, yellow, and red, if you mix 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 flowers of March Violets applied vnto the browes, doe assuage the headach which commeth of too much drinking, and procure sleepe. He that shall haue taken a blow vpon the head, so that it hath astonished him, shall not haue anie greater hurt, if presently after such a blow he drinke Violet flowers stampt, and continue the same drinke for a certaine time. There is made of the flowers of Violets, Syrrups and Conserues, good for the inflammation of the Lungs, the Pleurisie, Cough, and Agues.

It is also most excellent to preserue these Violets for Salads, to serue all the yeare, as thus: When you haue gathered your Violets, and pickt them cleane, both from their stalkes, and anie other corruption that may hang ouer their leaues, you shall wash them cleane, and strike the water through a drie cloth so cleare from them as may be: then take a Glasse-pot, of the fashion of a Gally-pot, so large, as you may put in your hand, and being cleane washt also, first, in the bottome thereof, lay a layre of your Violets, of halfe a fingers thicknesse, then take of the finest refined Sugar, beaten verie small, and therewith couer the Violets all ouer: then lay another layre of the Violets, and couer them with Sugar as you did before, and so lay Violets vpon Sugar, and Sugar vpon Violets, till you haue filled the pot to the top: then take of the strongest Wine-vineger that can be gotten, and poure it into the pot, till the vineger swimme aloft: then let it rest an houre or two, to settle: and if you see, that the vineger be shrunke below the flowers, you shall fill it vp againe, not ceasing thus to doe, till the vineger will shrinke no more: then couer the pot vp verie close with Parchment and Sheepes leather, and set it so, as it may receiue some small ayre of the fire; and after one moneth vse them, as occasion shall serue: for they will last all the yeare, both Winter and Summer, without loosing either their colour, strength, sweetnesse, or pleasantnesse, neither their growth nor fulnesse. And in this sort you may preserue all sorts of flowers whatsoeuer, as Roses, Marigolds, Gilliflowers of all kinds, Cowslips, Primroses, Broome flowers, Paunsies, Daisie leaues, or anie other sweet and wholesome flower whatsoeuer. Wherein is to be noted, that if the flower which you preserue, be of a pure white colour, and that you feare the vineger may somewhat abate the brightnesse of the colour, in this case you shall

ſhall diſtill your vinegar either in a Limbecke, or other ordinarie Still, and with the water which commeth from it (which will be of a moſt pure and chryſtaline colour) and is indeed the ſpirit and ſharpeſt part of the vinegar, you ſhall preſerue your flowers, and then without doubt they will not abate any part at all of their owne brightneſſe and colour.

White, yellow, and red Gillo-flowres.

White, yellow, and red Gillo-flowres, do craue the like ordering that the March Violet doth, and grow better vpon walls, houſe tops, and old ruines of ſtone, than planted or tilled in gardens, eſpecially the yellow, which come neerer to the reſemblance of a ſhrub than of an hearbe, hauing hard and wooddy ſtalkes, and ſet full of branches, commonly called of Apothecaries Keyry. The ſeed of Gillo-flowres ſtampt and drunke 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 manner of violets, this is the leaſt kind of the cumfreies, which is likewiſe found in the fields without being tilled, it flouriſheth all the yeare long if it be well ordered. Daiſies ſtampt with Mugwort reſolueth the King-euill. A Cataplaſme made of Daiſies is good for the palſie, and all manner diſtillations. For wounds in the breſt, whereinto tents may be put, it is good to drinke by and by a drinke made of ſtamped Daiſies: they heale the paſtules of the tongue if they be chewed, as alſo of the mouth: being braied they aſſwage the inflammation of the priuie members: eaten in ſallades or broth of fleſh, they looſen the bellie.

Kings-euill Palſey. Gowt.

Purple Veluet flower.

Purple Veluet flower, called in Latine *Amaranthus*, doth recreate more with his colour, than 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 drie and ſandie place. The flower ſupt in pottage, doth ſtay the flux of the bellie, the termes and white flowers of vvomen, the ſpitting of bloud, eſpecially if there be any veine broken or bruiſed in the lungs or breſt. The flower hereof infuſed in vvater or white vvine the ſpace of an houre, maketh the colour of the wine red, and thus one may helpe himſelfe the more eaſily to beguile any that are ſicke of ſome ague, and cannot abſtaine from Wine.

The white flowers of women.

Canterburie-bells.

Canterburie-bells, as well the ſimple as the double, require a fat ground and well inriched. The Latines call it *Viola Calathiana.*

The vertues.

Their flowers mingled with Wheat flower, make a good Cataplaſme againſt ſcuruineſſe and other ſorts of ſcabbes, likewiſe their roots boyled in white Wine, to the conſumption of the halfe, and a linnen cloth dipped therein, and applyed to ſcabbes and ſcuruineſſe doth heale them: the roots boyled in Wine and taken in a potion, doe heale all the ruptures of the inward parts of the bodies, doe cleanſe the exulcerated lungs, and ſpitting of bloud: brayed and ground in manner of meale and drunke in Wine the weight of a French Crowne, with two or three graines of Saffron, are ſingular good againſt the jaundiſe, if the partie ſweat thereupon preſently: the like vertue is in the diſtilled water of the flowers: the juice drawne out of their root and flowers applyed vnto wounds doth heale them preſently: a peſſarie drencht in this juice, prouoketh womens termes, and draweth out the child dead in the mothers vvombe: being dropt into the eare, whereinto there hath ſome Flea, or ſuch other vermine crept, it killeth them.

Prouence, purple and Indian Gillo-flowers.

Gillo-flowres of all ſorts are ſeldome ſowne, but oftentimes planted of roots or braunches pluckt from the plants. the root ſhall be planted in the beginning of Autumne, in a fat mould, and ſo put in pots of earth, th it it may be remoued and ſet vnder ſome couert in Winter for feare of the froſts: Sommer being come before the great plant haue caſt forth his ſprouts, you may breake off ſo many ſmall branches from about the root, as will almoſt ſerue to ſet and plant a whole bed withall, and ſo you may breed new plants of them.

To make Gillo-flowers to ſmell like Cloues.

You may make Gillo-flowers ſmell like Cloues, if you lay bruiſed Cloues round about their roots. In like manner you may make them haue faire flowers, large, pleaſant, and ſweet ſmelling, if you plucke away their leaues often, and take paines to digge

digge and water their earth: furthermore such Gillo-flowers are commonly called Gillo-flowers of Prouence, of the place where Gillo-flowers so ordered doe grow, large, tufted, and ample: those which haue not their flowers so large, nor so sweet, neither yet are so carefully looked vnto and dressed, are properly called Purple Gillo-flowers.

Gillo-flowers of Prouence.

Purple Gillo-flowres.

The flowers of Gillo-flowers of Prouence, as also their root, are soueraigne against the Plague. And for this cause such as are well aduised, in the time of the Plague doe make conserues or vinegar of the flowers of Gillo-flowers, to keepe themselues from the euill ayre.

Indian Gillo-flowres.

Indian Gillo-flowers, called of the Latines *Flos petillius*, and *Ocellus Indicus*, although it refuse no ground, notwithstanding if you plant it, of the whole plant, or of the branches thereof, or else sow it in a fat and wel 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 bignesse of a tree, and will put forth of his stalke many boughs, after the manner of a tree or shrub: and by the same meanes there will put forth flowers induring vntill Winter.

The Indian gillo-flower doth cause the head-ach and an ill & vnwholesome ayre.

Who will be counted carefull of preseruing his health, must not smell vnto the flower of the Gillo-flowers of India: for the smell thereof doth procure head-ach and giddinesse, and is a meanes to breed the Falling-sicknesse: further also, which is more dangerous, some haue found it by experience, that it ingendreth an infectious aire: likewise Physitians giue speciall prohibition to smell vnto the Indian Gillo-flower in the Plague time, because the flower thereof is venimous, and of temperate much like to the Hemlocke, which may easily be perceiued by the vnpleasant smell it yeeldeth, being both most strong and stinking. That it is so, namely that it is venimous, I haue giuen thereof sometimes vnto a Cat the flower of the Gillo-flowres of India beaten and mixt with cheese to eat: and she hath thereupon become verie much swelled, and within a short time after dead: I saw likewise a little young child, who after hauing put these flowers in his mouth, his mouth and lips did swell, and within a day or two after became verie scabbed.

Wild Gillo-flowers.

Wild Gillo-flowers as well white as red, although they grow in the edges of fields and along the waies, may notwithstanding be planted and set in gardens, where if they be oft remoued, they will grow to haue a double flowre. Their seed, flower, and whole hearbe is good against the stinging of Scorpions: and indeed haue so great vertue this way, that the hearbe onely cast among Scorpions, taketh from them all power to hurt: their seed 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.

Goats-beard.

Goats-bread, that it may haue faire, double, and full flowers, doth craue a fat and moist ground. The leaues thereof open at the Sunne rise, and they close at noone: the root boyled in mudde doth appease the paines and pricking of the side: taken in forme of a lohoch with syrope of Violets, it helpeth obstructed lungs, and the pleurisie: boyled in vvater, and preserued with Sugar, it is a singular preseruatiue against the Plague, Poysons, Venime, and deadly Stinging: the juice or distilled vvater of this hearbe doth heale greene vvounds, if you dip linnen clothes therein, and applie them to the wounds: some vse the root of this hearbe in sallades, where daintie and fine fare is: the same boyled in a pot vvith Veale and Mutton, and afterward prepared and made readie betwixt two dishes with butter and vinegar.

Mariana Violets.

Marie, or Marians Violets, for the beautifulnesse of the flowers, deserue to be sowne in a fat and well laboured ground: the flowers are good to make gargarismes, for the inflammations and vlcers of the mouth.

Lillie-conually.

Lillie-conually, called of the Latines *Lillium conuallium*, notwithstanding that it groweth in shadowed Woodgrounds, yet it deserueth to be tilled in gardens, as well in regard of the faire little flowers, white as snow, which it beareth, being also of a

most

moſt amiable ſmell, ſomewhat like vnto the Lillies; as alſo in reſpect of his vertues: becauſe the diſtilled vvater of the flowers being taken vvith ſtrong and noble vvine, 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 heart: yet theſe nor any other Lillies whatſoeuer can I commend for any vſe of noſegaies, becauſe the ſmell of them is luſſious, groſſe, and vnwholeſome, apt to make the head ake, and (as ſome hold of opinion) apt to ingender infection, by reaſon of a certaine putrefaction which it ſtirreth vp in the braine, vvhereby all the inward parts are diſtempered; therefore whoſoeuer planteth them ſhall preſerue them more for ſhew than ſmell, and make vſe of their medicinall qualitie, not of their order; and touching their medicinall qualtitie, there is none better than this, that if the root be taken and cleane waſht and boyled in milke, and ſo applyed to any hard tumour, ſwelling, byle, or impoſtumation, it will either diſſolue it, or elſe ripen, breake, and heale it, ſo that it be applied pultus wiſe verie hot.

Water lillie, as well the white as the yellow, deſireth a wateriſh and marſhie place: vve ſee it grow likewiſe in pooles and fiſh-ponds. The root of vvhite vvater lillie boyled with groſſe red wine and drunke, ſtayeth womens whites: the flowers, roots, and ſeeds, as well in decoctions as in conſerues, are verie ſingular to procure ſleepe, and to preſerue chaſtitie. *Water lillie.*

Hyacinth groweth verie vvell in a ſandie ground. The root and ſeed boyled in vvine and drunke, doth ſtay the flux of the bellie. *Hyacynth.*

Narcyſſus (ſo called of a Greeke word, becauſe the ſmell of it comming vnto the noſe doth cauſe an inclination vnto ſleepineſſe and heauineſſe) would be ſowne in a fat ground that is hot and moiſt: it groweth alſo aboundantly in Languedoc and Italie, and but a little in this countrie. *Narcyſſus.*

The root thereof boyled or roaſted, and taken with meat or drinke, doth greatly procure vomit: alſo, the ſame brayed with a little Honie and applyed, 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 ſowne, neither doe they require any great tilling. Their flowres differ from the flowres of marigolds in this, in that the flowres of the marigold doe open at the Sunne-ſhine, but the flowres 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 Spring, that thereby they may haue a pleaſant ſmell, and a delectable kind of ſauour, and afterward they muſt be dried in the ſhadow of the Sunne. Some people, to take away the ſuperfluous moiſture thereof, which putteth them in danger to be conſumed with Wormes, doe vvet them with Lee of aſhes, as well whiles they are in the earth, as when they are out, and ſo drie them and keepe them for to procure the linnens and woollen garments to ſmell well. *Corneflag or Gladiu.*

The juice of the roots put in a clyſter, doth appeaſe the paine of the Sciatica: the root dried and made in powder, doth cleanſe and conſolidate hollow and filthie vlcers: being held in the mouth, it cauſeth a good breath: layed amongſt clothes, it preſerueth them from all vermine, and maketh them ſmell pleaſantly. The juice of the root taken at the mouth ſundrie times, purgeth water in ſuch as haue the dropſie, eſpecially if it be taken mixt with the yolke of an egge halfe boyled. The root mingled with the root of ellebor, and twice ſo much Honie, doth wipe away freckles, red pimples, and all ſpots of the face, if it be annointed thereupon. The decoction of the root taketh away the obſtructions cauſed of a groſſe humour, prouoketh vrine, killeth vvormes, and caſteth out the ſtone. The Italians make a preſerue of this root 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 oyle, which hath power to reſolue, ſoften, and appeaſe the griefe of cold rheumes or diſtillations. *The vertues of Corneflag. Sciatica. Vlcers. Dropſie.*

Lillies

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 well 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 to water the roots 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 roots 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 together, to hang them in the smoake, for so they will put forth small roots like vnto vvild Garleeke, 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 young and fresh Lillies all the yeare long, if before they be open you gather them, and after close them vp in some bottell or well stopt vessell, that so they may come by no ayre. Or else close them vp in some oaken vessell well pitched, so that there can no vvater get in, and after sinke the vessell in some Well, Cesterne, or running vvater, for so they will keepe young and fresh all the yeare. And if at any time during the whole yeare you would vse them, set them in the Sunne, that so by the heat 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 twelue fingers within the ground, others eight, and some foure, for thus you shall still haue flowring Lillies for a long time.

Purple coloured Lillies.
Fresh Lillies.

Lillies in flower at diuers and seuerall times.

The vertues of Lillies.

A Cataplasme made with the Onion of the roots of Lillies, Hogs-grease, and the oyle of Canumomile, doth maturate and ripen Buboes. An oyntment made of the said roots, oyle of bitter Almonds, and white Wax, hath singular vertue to pollish and smoth the face, and to take away the vvrincles of vvomens faces. The vvater of Lillies distilled out of an Alembecke, doth take away the vvrincles of vvomens faces, and make them looke verie faire and white. The root boyled or roasted in hot embers, and stampt vvith oyle Oliue, is a singular remedie against all sorts of burning, as well of fire as vvater. Being boyled vvith Garleeke, and stampt in the lees of red Wine, cleareth vvomens faces and countenances, vvhich haue but ill colours after their lying in bed, if they besmeare their faces therewith at nights, and in the morning wash them with Barlie vvater. This root roasted and stamped with old Swines-grease, and applied to the cornes of the feet, doth wholly spend them, if they be kept thereto but three whole daies together: the distilled vvater of the flowers with a little Saffron and sweet Zylocassia, helpeth vvomen in child-birth, and deliuereth them also of their after-birth: the oyle that is made of the flowers by infusion, is good to soften all manner of hardnesse in swellings or otherwise: if you chafe the priuie parts with oyle of Linseed, and applie Wooll vvet in these oyles vpon the bellie: Women which are in trauell of child-birth will find great ease in the same.

Wrinkles.
Water of Lillie.

Burning and scaldings.

A smooth and glistering hew.

Small Paunces.

Small Paunces (otherwise called Autumne Violets) desire a drie and sandie place: they are to be planted in the Spring time, and beare flowers continuing to Autumne, yea to Winter, if so be they be oft watered and carefully handled. The leaues or juice of small Paunces taken at the mouth, or applied outwardly, are singular good to conglutinate wounds: the leaues of small Paunces boyled and drunke doe stay the Falling-sicknesse in children when they froth and fome: the same flowers boyled with their hearbes 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 spoonefull, haue great force to stay the falling downe of the fundament.

The

The Helitropian is a certaine flower, which hath such a loue and sympathie with the Sunne, that as his beames rise and spread open in the morning like a Curtaine, so the hearbe also openeth her leaues and glories, and (as it were) attending vpon his beames: her flower riseth as he riseth; and when the Sunne is in his Meridian or Noone point, then the flower standeth, and looketh straight vpright; and as the Sunne declineth, so it likewise declineth: and in the euening, as hee shutteth in his beames, so it also closeth vp her flowers, and remaineth (as it were) hid and lockt vp till the next morning. This Helitropian neuer beareth on one stalke aboue one flower, but it is exceeding large and great, being euer at least halfe a foot in the diameter: it is round and flat fashioned, and enuironed with yellow leaues of a bright golden colour: it groweth also vpon a great thicke stalke, straight vpright, and high from the ground: it beareth also verie manie seeds, which as soone as they are ripe, are like Marigold seeds, white, rough, and semicircled. The best time to sow it, is in the Spring time, at the wane of the Moone, and it is verie quicke and speedie in growing. The greatest glorie it hath, is the beautie thereof: yet it hath all those vertues which the Marigold hath, and cureth the same infirmities.

Contrarie to this, is the flower of the Night, which is verie memorable for the manie faire flowers which it beareth: It is therefore called the flower of the Night, because at the Sunnes rising it shuts vp her flowers, and at his setting spreads them open againe, and so flourisheth with great beautie all the night long: his flowers are of diuers colours, some white, some red, some carnation, and some yellow, some intermixt, and some entire: insomuch, that to behold it either in the morning, or in the euening, it lookes like a most fine piece of Arras or Tapistrie, to the great wonder of the beholders, when they shall see so manie seuerall colours proceeding from one stalke, without anie artificiall labour, or other sophistication. It is to be planted or sowne in the moneth of March, when the Moone is encreasing, the ground being fertile and rich, and well tilled and ordered before hand. *Flower of the night.*

Tulipan is a Plant which growes about two or three foot from the ground, and beareth a verie faire flower, yet commonly not before it be three yeares old: it delighteth to grow neere vnto the Flower-de-luce, and would be planted soone after Winter in the new of the Moone. The first yeare it putteth forth but one leafe, verie large, and of a greene colour: the second yeare it putteth forth two leaues: and the third yeare, three leaues, together with the knob or button, which beareth the flower and all, long before the approaching of Winter: as soone as the three leaues are sprung vp, which are euer neere vnto the earth, the stemme shooteth vpward a good height without leaues as smooth as a cudgell, till it be come to his full growth. Now of these Tulipans there are diuers kinds, and are distinguished onely by the different colours of their flowers: for some are white, some red, some blew, some yellow, some Orange, some of a Violet colour, and indeed generally of anie colour whatsoeuer, except greene: yet it is to be noted, that these Tulipans which are thus of one entire colour, are but common and ordinarie: for those which are most rare and precious, are of diuers colours mixt together, and in semblance like the flower of the Night before spoken of. Againe, there is another note of admiration in this flower; which is, that it changeth it colour euerie yeare of it owne nature, for the which no Gardiner is able to giue anie account: Also there be some Tulipans which will not flourish aboue foure or fiue daies in the yeare, and then after it carrieth no flower at all. *Tulipan.*

The Martagon is a plant which putteth forth verie rare and excellent flowers, much what in shape like the Flower-de-luce, and are infinitely desired for their excellencies: it is most commonly either of an Orange or red colour, and may be either sowne or planted in a good ground in the Spring time, when the Moone encreaseth. It groweth in height seldome aboue three foot, neither hath it anie branches; it garnisheth the earth with manie greene leaues, both long and sharpe, bending their points downeward. At the toppe of the stemme the flowers put forth, vpon seuen or eight round buttons or cuppes, which after a few daies *The Martagon of Constantinople.*

doe open, and out of euerie button springs forth a flower, which will continue thereupon at least three or foure daies, and then they will fall away, and the bowle is perceiued in which the seed is retained, which is not verie great but of a little and meane compasse.

Of Pionie. Pionie are flowers of diuers kinds, some being single, and some double, and are only esteemed for the beautie of their flowers, they may be sowne or planted on any well dreſt earth; immediatly after Winter the stalke of it is greene, and being risen halfe a foot from the earth, it putteth forth diuers large branches, vpon the tops whereof ariseth many great buttons, out of which breaketh forth the flowers, being round, great, and large, so that some haue beene measured from the circumference to be the third part of a foot in the diameter, & these flowers are euer of one colour, as being all red, all white, or all purple, and not mixt or stripped as other flowers are.

Crowne Emperiall. Amongst all the flowers which beauitfie gardens, none may compare with this either for odour, glorie, or generall delicacie, whence it commeth that it is called the Crowne Emperiall, it may be sowne from the seed in any well dreſt ground in the Spring of the yeare, and the new of the Moone, yet it is much better if it be planted from the root, which root is bigge and round like vnto a great S. Thomas Onion, about which in the planting you shall fould a little fine mould tempered with cows dung, and then set it a good depth into the earth, the stemme of this flower will spring out of the ground three or foure foot, garnished all along with fine leaues, yet without any braunches; at the top of all, it putteth forth eight or nine flowers, borne vpon seuerall little branches distinguished from the stalke, euerie one of them being of equall height and length, the flowers thereof for the most part shew pendant, because (like the Helitropian) they continually follow the Sunne, and neuer stand streight vpright, but at hie noone onely; the colour of them most commonly is a pale red, and they haue within the inward part of them a round liquid drop like vnto an Orient pearle, which whilest the flower is in strength, being for the most part fifteene or twentie dayes, you can by no meanes shake off, nor will it be beat away with showers or tempests, but if with your hand you wipe it away, a new one will arise againe presently in the same place: this pearle if you tast vpon your tongue is sweet and pleasant as Honie or Sugar. This flower must be carefully preserued from the frost, and the slips of it would be seldome or neuer set, because they are long ere they bring forth flowers as three or foure yeares at the soonest.

Chap. XLIX.

Of sweet smelling Hearbes.

Basill. Basill, as well the great as the small, is sowne in Aprill and May in a fat ground, and commeth vp quickly, if so be that by and by after it is sown it be watered with water somewhat heated: It may be sowne likewise in Autumne, and the seed would be watered with vinegar, for so (though it but a verie little) it will grow forth into branches. If you sow it in a drie ground lying open vpon the Sun; it will by and by turne and become either mountaine thyme or cresses. When you haue sowne it, you must draw vpon the ground some roller to fasten and set it close together, for if it should lye light and hollow, the seed would easily corrupt. It must be watered at noone-tide, cleane contrarie to other hearbs 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 injuries offered vnto it: and further that there is a deadly hatred betwixt amber & basill: for whereas amber or blacke jet is giuen to draw straws vnto

Basill neuer thriueth better than when it is cursed.

Hatred betwixt Amber and Basill.

vnto it vpon the touching of them, it driueth and putteth farre from it the leaues and ſtalkes of Baſill.

Such as are ſubject vnto head-ach, or feare to be troubled therewith, muſt ſhun the ſmell of Baſill altogether: for the ſmell thereof begetteth paine and heauineſſe of the head, yea ſometimes it ingendreth in the head little ſmall wormes, like vnto Scorpions: as we read to haue happened 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 hearbe can haue, is that if a woman doe hold the roots of Baſill in her hand, together with a Swallows 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 child-birth without paine.

Rue, as well that of the garden as the other which is wild, doth not loue eyther a moiſt or cold ground, neither yet a ground made verie fat with dung: but rather a hot and drie ground free from vvind, and where the Sunne ſhineth much, in reſpect whereof it muſt be couered with aſhes during the Winter time: for the naturall heat of the aſhes doth cauſe it to reſiſt the cold. It may be ſowne in March, Auguſt, and September, although in deed it grow better ſet of roots or braunches, than ſowne. When it groweth old, it degenerateth into a wooddie ſubſtance, and therefore you muſt cut the ſtalkes twice euerie yeare euen to the root, to recouer his youth againe: it muſt not be ſuffered (if poſſibly it may be let) to flowre, for if it be ſuffered to put forth any flowres, it groweth ſo much the more drie. Some report, that this hearbe hath a maruailous propertie, as that if it be toucht or come neere vnto, be it neuer ſo little, by a woman that hath abuſed her bodie, or that hath her termes, that it dyeth by and by.

Rue.

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 rind of a Figge-tree: for the warmth and ſweetneſſe of the Figge-tree doth temper the ſharpeneſſe and acrimonie 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 kind 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 enemies.

Wild 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 venime. Likewiſe we read that the king *Mithridates* was accuſtomed to vſe an opiate made of twentie leaues of Rue, two drie Figges, two old Walnuts, and a little Salt, to preſerue his ſtate againſt all manner of poyſon. For this cauſe you muſt plant in your gardens, and neere your ſheepecoats, houſes for your fowle and other cattell, great quantitie of Rue: for Adders, Lizards, and other venimous beaſts, 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 we ſee many men practiſe) becauſe by the ſharpeneſſe of the ſent there is cauſed a heat and excoriation of the part which it toucheth: notwithſtanding to draw out the venime that is in a bubo or peſtilent carbuncle, there is nothing better than to applie thereto a cataplaſme made of the leaues of rue ſtampt with

Mithridates his opiate for the Plague.

Rue an enemie to venimes and poyſons.

Rue an enemie to cats and fulmers.

That rue ſhould not come neere to the noſe.

For a bubo or Plague ſore.

leauen, hogs-greaſe, onions, figges, vnquencht lime, ſope, cantharides, and a little treacle. If a man haue eaten of hemlocke, ceruſe, mandrakes, blacke poppie, or any other hearbes, which through their great coldneſſe haue caused them to be ſleepie and blockiſh, they may profitably vſe the juice of rue, to drinke it for the deliuering of them from ſuch danger, or elſe the wine wherein it hath beene boyled. The diſtilled water of rue powred into vvine and roſe-water of each as much, is good for the weakeneſſe of the ſight. It is verie ſoueraigne for the headach, and being boyled in wine with fennell, and ſo drunke, it eaſeth all obſtructions of the ſpleene or liuer, and taketh away the pain of the ſtrangurie, and alſo ſtoppeth any flux, being ſtampt with Cummin-ſeed, it eaſeth all maner of aches, and being ſtampt with honie, wheat flower and the yolke of an egge it cureth any impoſtumation whatſoeuer.

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 downeward, 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 euerie yeare, for it will grow of it ſelfe without being ſowne or ſet in great aboundance.

The vertues of Mints. Mints ſtampt and applyed to breaſts too hard and full 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 weak ſtomach, and ſtrengtheneth digeſtion: two or three ſprigs of mints taken with the juice of a pomegranat, ſtayeth the hicket, vomiting, and ſurfets. It is good to help them which haue loſt 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. 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 milke in their ſtomachs: for mints haue the ſpeciall propertie of keeping milk from curding, as alſo to keepe cheeſe from corruption and rottenneſſe, if it be ſprinkled with the juice or decoction of mints: being applied vnto the brows, it aſſwageth head-ach comming of cold. The water of the whole hearbe diſtilled in Maries bath, in a glaſſe Alembecke, and taken the quantitie of foure 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 auncient time it was forbidden captaines in warre to eat any mints.

Wormes. *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 ſtomach, for the colicke and diſtillations: the juice thereof taken at the mouth killeth wormes in the bellie, and being dropt into the eare, it killeth them there alſo. Of this Calamint there are three kinds, as the ſtone Calamint, the earth Calamint, and the water Calamint, the water Calamint is excellent to make a man ſoluble, the earth Calamint is verie good againſt leproſie, helpeth pain in the eares, and comforteth the ſtomach, laſtly the ſtone Calamint is ſoueraigne againſt poyſon, and ſtrengtheneth the heart, if it be bruiſed and made into a plaiſter with wax and ſewet, it healeth any venimous wounds, and to drinke it three or foure daies together either in ale or wine, it cureth the jaundiſe.

Thyme. Thyme as well of Candie as the common, doth grow better planted than ſowne, 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 grow the fairer and fuller leaſe, it will be good to water the ground

oft

oft with water wherein hath been steeped for the space of one whole day drie thyme somewhat bruised. If you be disposed to gather the seed, you must gather also the flowers wherein it is contained, seeing they cannot be sundred. *Geodly Thyme.*

A Cataplasme made of thyme boyled 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-sicknesse 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 Sauourie 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 Sauourie are good for the nourishing of bees, and for the preseruing and seasoning of meats: they are also called fine, sebtill, or small and slender hearbes. *Winter Sauorie.*

Organie, otherwise called bastard Margerome, loueth a rough, stonie, peble, weake, and yet well furnisht ground, and vvithall craueth a manured ground, as also to be watered, vntill it be growne vp to his full bignesse, notwithstanding it be seene to grow in many places without watering or dunging. It may be remoued of little sprouts or sciences, and the lower end set vpward, to the end that it may put forth new springs and shoots; and 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 30 or 40 day after the sowing of it: in many places it is sowne neere vnto bees, because they willingly load themselues from thence, and make singular honie. *Organie.*

Organie boyled in Wine, and layed vpon the region of the raines, doth take away and vndoe the difficultie of making vvater: being boyled in wine and drunke, it is good against venimous beasts, or the stingings of Scorpions and Spiders. A Cataplasme made of Organie and Barly meale boyled together, resolueth the tumours vnder the eares. The decoction thereof is good to comfort the sinews, and the relaxed and weake parts: the seed thereof drunke vvith Wine doth prepare and dispose a vvoman to conceiue: the flowers and leaues of the sayd Organie dried at the fire in an earthen test or melting pot, and being wrapped vp verie hot in a cloth, and applied vnto the head, and kept fast tied thereunto, doth cure the rheume comming of cold. *The vertues of Organie.*

Hyssope affecteth a place free from shadow, and lying open vpon the Sunne: it may be set or sowne about the twelfth of March. It must be cut in the moneth of August, and dried to put in pottage in Winter. *Hyssope.*

Amongst other principall vertues that it hath, it is of great vse for the affects of the lungs, and to prouoke vvomens termes; if there be a broth made thereof to sup fasting in the morning. Some say that the syrope of Hyssope, taken oftentimes with fowerfold so much of the vvater of Pellitorie of the wall, causeth the stone and much grauell to auoyd from the reines: Hyssope with figs, rue, and honie boyled together in water and drunke, is good for those that are short breathed, and for old and hard coughs: stampt with salt, cummine, and honie, and applied, healeth the stingings of Scorpions: stamp: with oyle and rubbed, it killeth lice: pills made of hyssope, horehound, and pionie roots, doe heale the falling-sicknesse. *The vertues of Hyssope.*

Sommer sauourie 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 seen grow of it selfe in leane grounds, and neere vnto the Sea. It groweth more delightfully and of a better tast, if it be sowne amongst onions. It is verie good for sauce to meat. The leaues and flowres applied vnto the head in forme of a cap or garland, doth away the drowsily inclined. A Cataplasme made of sauorie and wheat meale, doth cure distillations. *Summer Sauorie.* *The vertues of Sauorie.* *The drowsie disease.* *The Sciatica.*

Coriander sorteth well with any kind of ground, notwithstanding in a fat and new 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 vvhich groweth in a shadowed place: when you goe about to sow it, chuse the eldest seed *Coriander.*

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. Sow 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 seed in water two daies before you sow it. If you must dung the ground where it is to be sowne, it must be with Sheepe or Goats dung rather than anie other.

The vertues of Coriander. The excessiue heat thereof bringeth Head-ach, and the trembling of the Braine: being eaten after meat, it comforteth digestion, and dispelleth windinesse, so that it be prepared. The way to prepare it, is as followeth: You must, hauing dried it well, cast vpon it verie good wine and vineger mixt together, and leaue it thus sprinkled and wet the space of foure and twentie houres, then drie 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 manie seeds a woman drinketh with white wine, so manie daies shall her termes continue. The seed drunke with the iuice of Pomegranats, killeth the Wormes in children. The iuice thereof, with Ceruse, Litharge of Siluer, Vineger, and Oyle of Roses, healeth the Wild fire, and all Rednesse. The seed stamped in Vineger, doth keepe the flesh from corrupting in Summer. Also to drinke the iuice thereof with Honey and Wine, killeth Wormes: and adding the seedes bruised thereto, it helpeth a quartane Feuer.

Digestion. Windinesse. To keepe flesh. It prouoketh the termes. Wormes. Wild fire.

Sage. Sage, as well the little as the great, is planted of branches wrythen at the foot, and also of roots, in the Spring, and Autumne. It is sowne also at the same time. The root delighteth to be laid about with Lee ashes. It must be set neere vnto Rue, to keepe it from Adders and Lizards, 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 touched by Serpents. Sage refuseth neither hot nor cold ayre: 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 ouer-growne therewith, and the Countrey inhabitants burne no other wood. Notwithstanding, to grow faire, it would be well digged about, and kept cleane from leaues and stalkes that are dead.

The vertues of Sage. Weakenesse of the sinewes. The trembling of the parts. 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 drinke, and a fomentation with the decoction of Sage for the trembling of the hands, and other parts. It comforteth the mother, being taken in a fume at the secret parts: by such fume it also stayeth the whites. Such as cannot beare their conception out their time, but miscarrie vpon slight causes, must oftentimes in the morning eat some Sage leaues, for they strengthen the retentiue facultie, keepe aliue and strengthen the child, and make women verie 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 themselues foure daies from hauing to doe with their husbands, and then afterward to lye with them, that so they might conceiue and bring forth manie children. To stirre vp appetite, and cleanse the stomacke full of ill humours, Sage must be vsed oftentimes in pottage, and otherwise: it assuageth the paine of the head, and cleanseth the teeth and gummes: it maketh a sweet breath, being boyled in wine: the distilled water thereof doth cleare the sight: the conserue of the flowers of Sage hath the like vertues.

To cleanse the stomacke.

Oake of Ierusalem. Oake of Ierusalem (called of the Latines *Botrys*) craueth a drie and sandie ground, or else a watrie ground, but such a one as is sandie or grauellie. We behold it also now and then to grow in swift running Brookes. Being once sowne, it needeth not to be sowne againe afterward: for it groweth againe euerie yeare, 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 dried and laid in Wardrobes, it giueth a verie good smell vnto the garments, and keepeth them from vermine. The decoction thereof with Licorice, is wonderfull good for such as haue a short breath, and are stuffed in their lungs, if you put thereto a little Sugar, or syrrup of Violets: yea,

The vertues.

yea,and furthermore to such as spit matter, vpon no other penaltie, but that it be vsed a long time. The hearbe parched vpon a hot tyle, and besprinkled with Malmesey and applyed vnto the bellie asswageth the pains of the matrix,yea and more too, if you adde thereunto the leaues of Mugwort, and the flowers of Cammomile,all fried with oyle of Lillies, and the yolke of an egge.

Horehound (called in Latine *Marrubium*, or *Prassium*) as well the blacke as the white groweth in euerie ground, but rather in an vntilled than in a tilled ground: you may also see it grow neere vnto walls,hedges, wayes, and borders of fields: it is true that the wild 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 spitting: it prouoketh womens termes,and bringeth forth the after-birth. *Horehound.*

Sea, Romane, and common Wormewood, is not so much sowne 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-Wormewood groweth in a salt and ashie ground: the common in hillie, stone, drie, and vntilled grounds; for to set them, you must writhe the roots. *Wormewood.*

Wormwood, amongst other his vertues almost infinite and admirable, doth especially comfort the stomach laden with cholericke humours, but not the stomach oppressed with flegmaticke humors,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 Wormewood, doe heale the Iaundise. The conserue of the crops made of a pound thereof, 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 drunkennesse. It is an antidote in case a man haue eaten venimous Mushromes, or taken downe any other venime,especially the Hemlocke,as also in bitings and stingings of Spiders and other venimous beasts. The juice mingled with the kernells of Peaches, doth kill the Wormes. The leaues made into ashes,and mingled with oile of Roses, doth make the haire blacke. The leaues layed in Wardrobes, doe keepe the garments,and doe driue away Flies and Gnats. *The vertues of Wormewood. A weake stomacke. Iaundise. Dropsie. Wormes. To make the haire blacke.*

Southernewood groweth best being planted of roots or shoots, for it doth not so well being sowne of seed. It cannot abide much cold,nor much heat, and therefore it must be planted in some such place of the garden as is temperate. The seed the weight of a French Crowne stampt with some of the leaues in white Wine, adding thereto an old Nut, and a little Bole-Armoniacke, all being strayned and drunke,is a singular drinke against the Plague, and all manner of poyson. The crops of the tops of the leaues, and the flowers being beaten and stampt in oyle, and made into the forme of a liniment, doe serue to shift off the shiuerings of agues, if so be that the soles of the feet and vertebres of the backe of him that hath the ague be rubbed therewith. Southernwood taken inward,or applied outward,doth kill wormes in young children. It is true that *Galen* forbiddeth the taking of it at the mouth, because it is an enemie to the stomach. *Sotherwood and his vertues. The Plague. Poison. Shiuerings of Agues. Wormes.*

Rosemarie loueth chiefly a reasonable fat ground: it groweth in any ayre,but best by the Sea sides, and thereupon it beareth his name. It must be planted in the Spring and Autumne, of roots or braunches 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 verie moist or subject vnto the Northerne vvind, because this plant can hardly endure the cold, 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 young sprigs, and set them three inches vvithin the earth, making the earth fast and close vnto them aboue: or else of some part of the most leauie branches thereof,which being afterward helped by making the ground light,doth spread and continue fresh, hauing no need to be watered, except at the verie 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 young, it would be diligently weeded and picked: *Rosemarie.*

picked: it requireth no dung, but onely a good mould, and to be compassed about the root with good earth. The lees of Wine, and the scraps broken off from Bricks, layd at the foot thereof, doe cause it to grow maruellously. There are two sorts of Rosemarie: the one bearing seed, and the other not. Some plant it for food neere vnto Hiues, because it flowreth betimes, and for that the Bees doe greatly delight in it, and by it doe better continue in health, as also make better honey than those which feed not vpon it at all. The flowers of it will keepe a yeare or two, without being spoyled, if you gather them cleane, and not mixt with anie filthie thing, hauing also dried them a little in the Sunne, vntill they haue lost their newnesse and freshnesse: afterward drie them vp throughly in the shadow, and put them not vp to keepe till they be perfectly dried.

The vertues of Rosemarie. An euill ayre. Headach.

It is good in the Plague time to perfume the house with Rosemarie, for the fume thereof driueth away the ill ayre. The leaues and flowers are good against headach, especially to stay the whites, if a woman doe vse them long time euerie morning: but more specially, to make the sight better, if the partie that hath the weake sight doe eat fasting both the leaues and the flowers of Rosemarie ioint together, with bread and salt euerie morning. The flowers thereof made in conserue doe comfort the Stomacke, and are good in melancholike Passions, the Falling sicknesse, Conuulsions, and Palsies. The seed drunke with Pepper and white Wine, doth heale the Iaundise, and take away the obstructions of the Liuer. The decoction of the leaues thereof in white Wine doe comfort weake and oppressed Sinewes: If you wash your head therewith, it will make a hard skinne, and comfort the little braine, and also keepe the haire from falling so quickly. Some doe make Tooth-pickes of the wooddie parts thereof, and those verie good; as also Coales to draw the first Lineaments and Ground-worke of Pictures, and such other things, to be painted.

Iaundise. Weake sinewes.

Iesamine.

The ordering of Iesamine is like vnto that of Rosemarie, saue that Iesamine doth continue alwaies greene, and not so subiect to frost as Rosemarie, and is much in request for Arbors and Shelters, and for the setting forth of a Quarter. There may be made an Oyle of his flowers, infused a long time in Oyle of sweet Almonds, strayned in a bagge from betwixt a Presse, which will be soueraigne to comfort the weake sinewes and other parts of the bodie troubled with cold distillations, and to appease the frets of young children.

Weake sinewes. Cold distillations.

Mountaine Thyme.

Mountaine or wild Thyme delighteth to be planted or sowne in grounds neere some Fountaine, small Rundle, or Well, and such as is ill tilled, being drie in Summer, 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 Sunne, and would be oft transplanted. Sometimes it commeth of Basill that is ill husbanded.

Headach.

Mountaine Thyme boyled in vineger and oyle of Roses, assuageth the headach, if the temples be rubbed therewith: boyled in Wine, and drunke, it prouoketh Womens termes, bringeth forth the after-birth, and dead child: with Honey it cleanseth the Lungs, and helpeth the Falling sicknesse. The decoction is good for the windinesse, swellings, and hardnesse of the Matrix. The perfume of Mountaine Thyme killeth Serpents and other venimous Beasts, and driueth away Fleas. The weight of a French crowne of the powder of Mountaine Thyme, drunke with water, assuageth the belly ach, and deliuereth the partie which is troubled with difficultie of vrine.

To kill Serpents. Belly ach. Difficultie or painfull making of water.

Penyryall.

Penyryall groweth well either sowne or planted: wherein this must be marked, that if it be planted of the root or branches in Autumne, it will bring forth leaues and flowers in mid Nouember. It being once planted, continueth alwaies, so that it be well wed and pickt euerie yeare: it must be watred verie diligently. Penyryall is excellent good against the Dropsie, for the Spleene, Iaundise, and furthering of womens deliuerance in trauell, as also to bring forth the after-birth, and to procure the termes, being drunke with white Wine. The perfume of Penyryall killeth Fleas and

To prouoke womens termes. To kill fleas.

and venimous Beasts. A Cataplasme made of Penyryall boyled in Wine, doth assuage the paine of the Sciatica. *The Sciatica.*

Dill loueth better to be planted than sowne, and craueth chiefely a ground somewhat warme, but more enclining to cold. If you would haue it to grow faire, you must water it oftentimes. When it is sowne, 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 onely with smelling to it, to prouoke Vrine, and helpe the digestion of the Stomacke: it causeth a spring of milke in Nurses, healeth the suffocation of the Matrix, and ripeneth all manner of tumours. *Dill.* *Belchings.* *Gripes.* *Difficultie of making water.*

Annise craueth a well batled, tilled, fat, and manured ground. It must be sowne in March, and oft watered. Euerie 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 beautifull and comely countenance: after meat, it also helpeth digestion: it is good for Nurses to cause them to haue much milke. It also taketh away the stoppings of the Stomacke or Spleene: it helpeth Collickes, prouoketh Vrine, makes a man apt to sweat: and lastly, keepes the bodie soluble. *Annise.* *A stinking breath.* *A faire face.*

Bishops-weed craueth such ground and such tillage as Annise, which being once sowne, doth lightly grow there euerie yeare by the seed falling from it: it groweth chiefely in rested grounds. The seed is excellent good against Wringings and Gripes, to prouoke Womens termes, and Vrine, if it be drunke with Wine, so that it be vsed but seldome, for otherwise it causeth a pale colour. The perfume doth mundifie and cleanse the Matrix, and maketh barren women fruitfull, if together with this suffumigation the barren woman doe take euerie second morning the weight of a dramme of the powder of this seed, three houres before shee eat anie thing, continuing it for foure or fiue times: but in the meane time, the husband must lye with his wife vpon such daies as shee shall vse this powder: a thing proued diuers times. *Bishops-weed.*

Caraway is sowne 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 Windinesse, and hath the same vertues that Annise hath: being made into powder, it is with good successe mixt amongst such remedies as are vsed to be giuen for drie blowes. *Caraway.*

Cummin doth grow fairest, when it is sowne in a fat and hot ground, or in a ground lying open to the Easterne Sunne amongst the pothearbes (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 rayled vpon. It must not be watered so presently after it is sowne; but after it is put forth of the earth, it must be oftentimes watered. *Cummin.*

The seed taken at the mouth, scattereth the winds which breake vpward, it mendeth the inward gripes, and taketh away the difficultie to make water; as also the blacknesse of drie blowes, the powder thereof being presently applyed affter it hath beene beat verie 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 seed taken vpon the face, doth make it pale and deadly. And this doe they verie well know, which are giuen ouer to counterfeit holinesse, sincere and vpright dealing, or the subduing or bringing vnder of the bodie. Also the seed thereof bruised and boyled in Oyle, is good against anie Impostumation, and assuageth anie great swelling. *Windinesse.* *Gripes.* *Difficultie in making water.* *Drie blowes.*

Fennell findeth not it selfe agrieued with anie ayre or soyle: howbeit, naturally it is more enclining vnto a hot than vnto a cold ayre, and vnto a grauellie ground rather than vnto a better: onely it flyeth and refuseth a sandie and altogether barren ground, as not thriuing anie whit therein. It is sowne in the Spring and Autumne, and it is planted likewise at the same times, the stalkes are remoued hauing put *Fennell.*

forth

forth a tuft, euerie one from another, or elſe the whole tuft onely: notwithſtanding, the ſweet Fennell loueth rather to be ſowne than planted, and that rather in the Spring than in Autumne, for ſo it groweth more ſweet, and beareth the greater ſeed. It muſt be ſowne in and remoued vnto a ground open vpon the Sunne, and reaſonably drie, and ſeldome ſowne, as not aboue one yeare. It muſt be kept verie cleane ſo long as it is in growing, and vntill it be come vnto his full growth, for otherwiſe bad weeds would choake it.

Sweet Fennell. To haue verie ſweet Fennell, put your ſeed in a Marſellis figge, and ſo ſow it, or elſe mix honey with the earth wherein you ſow it, or elſe ſteepe the ſeed in honey one or two nights before you ſow it, or elſe in the water of honey, or in milke, changing the ſame, and putting new in ſtead, in ſuch ſort as we haue ſaid in the handling of Melons.

Cleare ſight. Fennell, as well the leaſe as the ſeed, is wholly dedicated to the clearing of the eyes: and for this cauſe, ſome draw the iuice of the leaues and ſtalkes while they are yet tender, and drying it, keepe it for the ſame effect. Sometimes the water of Fennell is diſtilled all alone, and by it ſelfe, or elſe mixt with honey. 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 bodie. It may be eaten greene after the beginning of Auguſt: as alſo the buds and tender ſtalkes 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 anie exceſſiue heat. The vſe of Fennell alſo cauſeth women to haue great ſtore of milke.

Windineſſe.

Abundance of milke.

Marierome. Marierome groweth of ſeed, roots, or ſhoots, 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 Summer. The roots muſt be defended from Rats and Mice; for this kind of vermine doth it more iniurie than anie other: which you ſhall find and proue true, if it pleaſe you but to make triall thereof. The iuice preſſed out of the leaues, and drawne vp into the noſthrils, doth purge the head: made into a lee, it dryeth the rheumes, and ſcoureth away the filthineſſe of the head. The broth wherein it hath boyled, is good againſt the beginning of a Dropſie, as alſo for them that cannot make water well, and which are ſubiect vnto Gripings.

To purge the braine.

Dropſie.

Mugwort. Mugwort, whether it be ſet or ſowne, craueth a drie and ſtonie ground, contrarie to another hearbe reſembling it, and called hearbe S. Iohn, and groweth in marſhes, and is indeed the male Sothernwood.

The vertues. Mugwort 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 proue, who account not themſelues to haue anie more ſoueraigne remedie againſt the Plague, than Mugwort made into aſhes, and afterward boyled into a chymicall ſalt, to vſe ſo ſoone as they perceiue themſelues ſtrucken with the Plague, with foure or fiue ounces of good Wine, or Malmeſey, and afterward to goe lay themſelues downe in bed, to cauſe themſelues to ſweat two or three houres. It hath ſingular vertues againſt the diſeaſes of the Matrix: for the leaues put into a bagge, or made in forme of a Cataplaſme, and applyed 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 oyle of bitter Almonds, and applyed vnto the ſtomacke, doe ſtay the paine thereof. There is made a ſingular Peſſarie to bring downe womens termes, with the leaues of Mugwort, Myrrhe, and Figges, all being brayed with oyle of Ireos. The root powdred and drunke with white wine, doth ſo purge the Matrix, as that it caſteth forth the mole and after-birth. The iuice is with good ſucceſſe drunke againſt Opium: the powder of the dried leaues drunke with wine the weight of three drammes, is exceedingly good for the Sciatica. Some ſay, that the traueller which carrieth Mugwort the whole hearbe, tyed vnto his legges, or thighes, ſhall not find himſelfe wearie at all: and that hanged at the entries

The Matrix out of order, and vnruly.

entries of houses, it with-holdeth all Incantations and Witch-crafts. When a woman laboureth of child, and cannot auoid her after-birth, there is nothing better than to apply vnto her, vnder her nauell, vpon her thighes and flankes, a Cataplasme made of Mugwort leaues, boyled with Barly meale: but presently after the child or after-birth is come forth, you must take away this Cataplasme, otherwise it would draw downe the Matrix also. If you stampe the iuice of Mugwort with the yolkes of egges boyled, adding thereto Hogges grease and the seed of Cummin, and apply it all in manner of a Cataplasme vpon the Matrix, you shall remedie all the paine that ordinarily doth follow after child-birth. *After-birth.* *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 wee see it grow in Wayes, and in the edges of high Wayes. The seed or flowers drunke with milke or wine, doth kill the Wormes: and that is the cause why some call it Worme-bane. It serueth also to prouoke Vrine, and to breake the Stone and Grauell of the reines, especially in men, as Fetherfew doth the same in women. *Tansie.* *Wormes.* *Stone.* *Grauell.*

Fetherfew doth require the like ordering and ground that Mugwort 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, stamped and applyed vnto the teeth or eare of the side that aketh, it wholly assuageth the paine of the teeth: And this is the cause why the Parisians doe call it *Espargoutte*, because the leaues thus stamped and applyed, doe cause to distill out of the mouth, drop after drop, the flegmaticke humour, which causeth the said tooth-ach. 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. *Fetherfew.*

Cats-mint, or Nept, is a kind of Calamint, whereof wee 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 anie great husbanding in marshie and waterish places, as may easily be seene and tryed. It is reported to haue a singular vertue in helping women to conceiue. In like manner Physitians are wont to prescribe Bathes and Fomentations made of this hearbe, for women that cannot conceiue and haue children. Also it is verie delicately purgatiue, and openeth the bodie verie gently, without offence, or danger of after-costiuenesse. *Nept, or Cats-mint.* *Conception.*

French Lauander being an hearbe of a verie good smell, and verie vsuall in Languedoc and Prouence, doth craue to be diligently tilled, in a fat ground, and lying open to the Sunne. The decoction, syrrup, or distilled water doth comfort the braine and memorie, taketh away 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 to vomit, and altering them much, by bringing a heat vpon all the bodie. *French Lauander.*

The drie, stonie, and Sunne-shining place is verie fit for Lauander, whether male or female. Before it flower, it must be cut and picked verie carefully. It is of a sweet smell, and good, when it is dryed, to put amongst Linnens and Woollen Clothes, imparting of his sweetnesse vnto them, and keeping of them from vermine. It is verie excellent to comfort weake and wearied sinewes, or otherwise ill affected, through some cold cause: and by reason hereof, Baths and Fomentations made of Lauander for Palsies, Conuulsions, Apoplexies, and other such like affects, are verie soueraigne. The flowers, with Cinnamon, Nutmeg, and Cloues, doe heale the beating of the heart. The distilled water of the flowers, taken in the quantitie of two spoonefuls, restoreth the lost speech, and healeth the swownings and disease of the heart. The conserue and distilled water thereof doe the like. The Oyle thereof dryeth vp Rheumes also: and beeing annoynted vpon the nape of the necke, it is singular good against conuulsions and benummednesse of sinewes. *Lauander.* *Weake sinewes.* *Palsies.* *Conuulsions.* *Apoplexies.*

All-good

All-good, otherwise Clary.

All-good (otherwise called in French *Orualle*, because it is as much worth as gold) groweth in anie ground, without seed, and with seed: it delighteth notwithstanding to be often watered. The leaues stamped and applyed, doe draw forth thornes and prickes that are fastened and runne into anie part of the bodie whatsoeuer: It doth, in like manner, bring the child out of the mothers bodie, being in trauell. The wine wherein it hath been steeped in small quantitie, doth make men pleasant and cheerefull, and apt to carnall copulation. The seed thereof put into the eye, and turned manie times round about the eye, doth cleanse and cleare it, in wiping away the flegmaticke humour, wherewith you shall well perceiue the seed to be laden, and (as it were) wrapt in small filmes after that it is taken out of the eyes. The flowers and seed put in a vessell full of sweet Wine, whiles it yet purgeth, giueth it the tast of Malmesey. It is true, that such Wine will quickly make one drunke, and cause the head-ach, as we see that Beere doth, wherein Brewers boyle Clarie in stead of Hoppes.

Cheerefulnesse.

To cleare the sight.

Nigella.

Nigella of the Garden must be sowne in a ground that is fat and well tilled. The fume of the seed taken, doth stay the rheume, drie the braine, and causeth the smelling that is lost to come againe: boyled with water and vineger, and holden in the mouth, it assuageth tooth-ach.

Balme.

Sweet Balme groweth rather in Woods and Forests than 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 verie strongly.

Cheerefulnesse.

It serueth to reioyce the heart, and deliuereth the spirit from melancholike imaginations and fansies: it is good not onely against bitings and stingings of venimous beasts, but also against the Plague, in whatsoeuer manner it be vsed. And further, if anie man doubt himselfe to haue eaten anie venimous or poysoned meat, as it falleth out often in them which haue eaten Mushromes 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 gone away, doe rub the Hiues with the flowers of sweet Balme: as on the contrarie, to driue them, and to cause them to forsake them, they rub them with the flowers of Fetherfew.

To keepe bees from flying from their hiues.

To driue them from them.

Camomile.

Camomile, as well the white as the yellow, hath no need of great tilling: it is sufficient to plant it in a drie, leane, and stonie ground.

To mollifie, resolue, rarifie.

Camomile is singular good to mollifie, resolue, rarifie, and loosen: and in this respect there is no remedie better for lassitudes or wearisomenesse, without iust outward causes, than bathes made with the leaues and flowers thereof. The leaues of Camomile stamped with white wine, make a verie 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 Camomile drunke warme in the beginning of the fit, doth throughly heale the Tertian by vomit. The leaues of Camomile yet greene, being dryed vpon a Tyle, or hot Fire-panne, doe by and by appease the head-ach. Being also fried with sweet Sewet and vnset Leekes in a Frying-panne, and put hot into a Linnen bagge, and so applyed to the nauell, it killeth Wormes either in old, middle age, or young infants, and taketh away all manner of paine in the bellie.

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 Camomile, and yeeldeth a verie good smell, especially when it is new, or when it raineth, in Summer: it also assuageth the ach of anie part or member, whatsoeuer it be. Also the iuice thereof, mixed with Turpentine, Waxe, and Oyle, ripeneth, breaketh, and healeth anie Impostume whatsoeuer: it taketh away all hard swelling, and cleanseth wounds.

Apples of loue.

Manie men being verie 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 fruit, which

is

which is as thicke as a Cucumber drawing towards a red colour. They must be sowne in the Spring, in a fat and well battild soyle, and where the Sun hath great power, because they cannot abide any cold: they craue the like ordering and husbandrie that the Cucumber doth.

Many licorish mouthes let not to be eating of these, no more than of mushroomes: they take away their pilling, they cut them in slices, boyle them in water, and after frie them in the flower of meale and butter or oyle, and then cast vpon them pepper and salt: this kind of meat 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 head-ach, sadnesse, melancholicke dreames, and in the end long continuing agues: and therefore it were better to forbeare them.

Mandrakes as well the male as the female is more acceptable and to be commended, for the beautie of his leaues, fruit, and whole plant, than for the smell it hath: it must be sowne or planted in some shadowed place, a fat and well battild ground, and be kept from the cold which it altogether detesteth and cannot abide. *Mandrakes.*

The Apples of Mandrakes procure sleepe, if you put but one of them vnder your eare when you are layed in bed: it is all but fables which is spoken of the root which is not so cooling as the apple, and hath vertue on the contrarie to drie, soften, and resolue all the hardnesse 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 boyle the rootes of Mandrakes, vvith Iuorie for the space of sixe houres, it maketh the Iuorie so tractable, and softeneth it in such sort as that you may set what impression vpon Iuorie that you 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. *The vertues.*

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 greene, but afterward when it commeth to ripenesse, it becommeth somewhat golden, and sometimes reddish. This plant is more pleasant to the sight, than either to the taste or smell, because the fruit being eaten, it prouoketh loathing and vomiting. *Golden-apples.*

Chap. L.

Of the forme of setting Hearbes in order, by proportion of diuers fashions.

WEe haue alreadie deliuered the forme of setting Hearbes in order, as well such as are of a sweet 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 Gardener, and partly vpon the pleasure of the maister 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 eye according to his best fantasie. Notwithstanding that there may not any thing be here omitted, which might worke your better con-

tentment and greater pleasure, by looking vpon the beautie and comelinesse 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 Crecie in Brie, the most excellent man in this art, 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 eye. And touching these proportions, you shall vnderstand that they are of two kinds, inward and outward, the inward are those beauties and proportions which are bestowed vpon the inward parts or quarters of your garden, as are knots, mazes, armes, braunches, or any other curious figures whatsoeuer, and these are diuided by slender rowes, or lines of hearbes, flowers, turfes, or such like; the outward beauties or proportions are those which are bestowed in the outward and generall parts of the whole or entire modell of the garden, drawne into what figure, knot, or deuise your fancie can create, or the ground retaine, and are diuided by alleyes, hedges, deepe borders, and such like, as shall be at large shewed vnto you hereafter.

To come therefore vnto the matter, all the sweet smelling hearbes 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, wild thyme, rosemarie, thyme, sage, marierom, cammomile, violets, daisies, basil, and other such hearbs, as well those that are of sweet smell, as those whsch are for nosegayes: as for example, lauander and rosemarie of a yeare old to make borders about the proportions or knots; and as for boxe in as much as it is of a naughtie smell, it is to be left off, and not dealt withall. All the rest of the hearbes, as penniroyall, hyssope, wild 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 middest of borders, or whereof proportions of quarters without borders, as wel whole as broken, are made. Germander also is an excellent hearbe for the setting forth of any inward proportion, for it growes euen and comely, thicke and vpright, so is also mother of thyme, winter-sauorie and pinkes, prouided that with your sheares you keepe them from too much spreading.

The hearbes whereof borders shall bee made, must bee more high and thicker set of leaues, than 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 and good proportion of the knot or quarter may bee seene and discerned more easily.

I call in these places that the border which compasseth the proportion or quarter about, as also the alleys of the garden: I call broken quarters, those many small parcels which are sundred and seperate one from another. The proportions either without borders or borders, are either equally square in widenesse and length, or else vnequally squared, that is to say, longer than they are wide, or wider than 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 hearbe in the midst of broken quarters, it must not bee ouer high, but lesse and shorter than 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 hearbe of a meane and middle height, yea,

yea, or ſome ſuch as for his bigneſſe may reſemble a ſhrub or little tree, but it may not be thicke ſet with leaues, nor ſpreading far abroad, but rather putting forth his ſtalke vpright, as doth the Bay and Cypres tree.

But in reſpect of the beautie and comelineſſe of the quarter, you muſt not plant any thing in it, or if you do plant any herbe, you muſt ſee, that it be of a ſhorter ſtalke than that which compaſſeth it about: the knot that is made of borders, muſt conſiſt but of two ſorts of herbes: as for example, of Lauander or Roſemarie, or Boxe for the border, and of Penny-royall or Hiſſope within. It is true, that in the middeſt, and foure corners thereof, there may be ſet ſome Cypres, or Roſe-marie, or ſome ſuch other herbe, or little tree, which is not thicke ſet with leaues, nor ſpreading far 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 be ſhort, and thinne ſet with leaues, as Sage, Penny-royall, Margerom, Cammomill, Daſſies, Violets, Baſill, Rue, and ſuch others, which herbes ſhall be planted in diuers quarters, to the ſetting forth 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 birds, men, or other ſuch pourtraites made of Roſe-marie, according to your pleaſure, and inuention of your Gardener.

The herbes wherewith proportions are ſet out and deckt, muſt bee planted of rootes or ſlippes: the time to plant them is Ianuarie, Februarie, March and Aprill.

It is true, that if you plant herbes, eſpecially Penny-royall and Lauander vpon ſlips. The time of gathering of good plants, will be at the end of Ianuarie, and in the moneth of Februarie, and not later, becauſe this kind of ſlip will not bee frozen by any froſt that may happen, and withall, in the meane time, it doth not ſtand in neede of watring, becauſe it hath taken roote before the hot times of the yeare come in.

Againe, if you ſet herbes of the roote, you muſt ſtay till March and Aprill, and looke well vnto it, that your herbes haue ſound, liuing, and euery way ſufficient rootes, for otherwiſe, they will not bee 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 verie 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.

Wherefore for the greater aſſuredneſſe, I could wiſh you to plant your herbes rather of ſlippes than of rootes: for beſides that, it will bee more eaſie, and of leſſe charge and coſt to purchaſe ſlips, than to purchaſe the whole herbes with the roots. It will be alſo leſſe labour and trauell for to preſerue and make to grow the one than 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 root, or ſlip, you muſt caſt trenches, rather with ſome ſhort handled hand-forke, or hand-ſpade, than with a dibble, which you ſhall find a great deale more eaſie.

Behold here the greateſt part of the things which you are diligently to looke vnto before you put your hand to the worke of caſting your proportions or knots: and whereas their whole beautie and commendation doth conſiſt in a well framed and proportioned forme, and in a well carried and appointed order of diſpoſing them, ſuch as may delight the eie: to the end you may attaine this commendable and well pleaſing kind of proportion in the contriuing of your quarters, you muſt firſt caſt what is the ſpace and whole contents of your quarter, wherein you meane to draw your proportions, that ſo according to the ſaid contents, you may fit them with ſuch forme as the place will affoord. 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 drawne in your quarter.

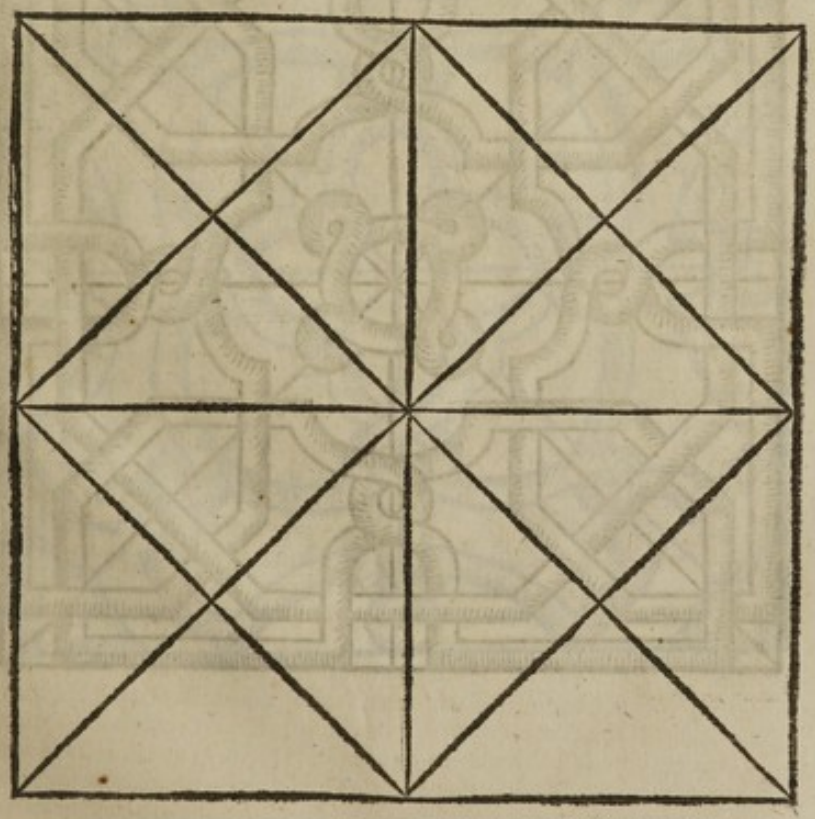
And thus much concerning the meanes which you ſhall vſe in the finiſhing vp of a knot with borders. Before you ſtretch your line to draw and caſt the ſhape of it, you muſt firſt take the bredth and length of the border, and that ſuch as the quantitie of the ground may conueniently beare, and ſo make it more long and broad, or elſe long and broad accordingly.

It is true, that if you haue good ground enough, as about ſome ſixtie foot ſquare, after the meaſure of a common foot, euery one containing twelue inches, you may make your border large enough: but and if you haue leſſe quantitie of ground, then you muſt make your border leſſe, and the proportions at large: you ſhall ſo finiſh vp your borders, as that in the middeſt of them, you may haue ſome prettie little knot. When you haue caſt your ground, you ſhall begin to ſtretch your line with good and firme line-reeles, to take the bredth 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 directorie, 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 middeſt of the border, thereby to take the iuſt middeſt, and that for to direct and guid you. Furthermore, you ſhall haue two lines of the length of the border or quarter, and two foot ouer, and theſe are called the flying or running lines, for that they ſerue to carrie or remoue from place to place, for the planting of herbes in the ſaid borders. Againe, 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 thickeneſſe of a thombe, of willow, or ſome other ſtraight wood, the one eight foot long, and the other betwixt three and foure, the long one to ſerue for the largeſt works, and the ſhort for the ſmaller: vpon which rods, you muſt marke out your proportions, wherof you meane to make your ſquares, or any other forme that it ſhall pleaſe you to make. For round workes, you muſt haue an inſtrument, commonly called the Gardners Bilboquet, the patterne whereof you ſhall ſee hereafter; but giue it what name it pleaſeth you, but this is the manner of making of it: You ſhall take a prop or ſtandard, ſomewhat thicker than your thombe, you ſhall put thereto a line of the ſame thickneſſe that your gardening lines are, of three or foure foot long, or according to the length and greatneſſe that you would haue your rounds of. Vpon this line, ſhall you make knots, according to the bignes or outſide of the worke, and then another 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 hand, that if you make them any leſſe, the border will be ouerſhadowed, and will not laſt and continue ſo long; and yet I ſtill refer 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 foure fingers long, more or leſſe as you ſhall moſt fancie, and of 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 ſtand with your liking to make two Bilboquets, one for your ſmal rounds, and another for your greater. This figure following, doth ſhew the forme and faſhion that muſt be followed in vſing your lines for the making of your quarters with borders. Theſe draughts will ſerue alſo to make a border to broken quarters, with ſome ſmall whole and vnbroken proportions in the midſt, euen as you ſee a ſquare in the midſt, and ſhall further hereafter ſee it in other portraitures, which ſhall be ſet out for your vſe. To work the more ſurely, you ſhall let all your lines be ſtretched out in length, and our ſtandards, props, or dibbles faſt in the ground, vntill ſuch time as you haue throughly finiſhed the bor-

der,

der, that is to ſay, your croſſe lines in the middeſt, as alſo thoſe which paſſe from corner to corner, and thirdly, thoſe which make the ſides of the borders. All which ſaid 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 rounds, and to the ſquaring of the ſaid border, & when as one ſide is downe, they are then to be taken vp, & to be pitched down elſe where. And although that here be foure, yet two is ſufficient, at the diſcretion of the gardener, who according as his number of workefolkes is, more or leſſe, ſhall ſtretch and draw moe or fewer lines.

The manner 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 bee continued and kept ſtretcht till the whole proportion be drawne out and finiſhed.



The vſe and manner of practiſing by the ſtretched lines.

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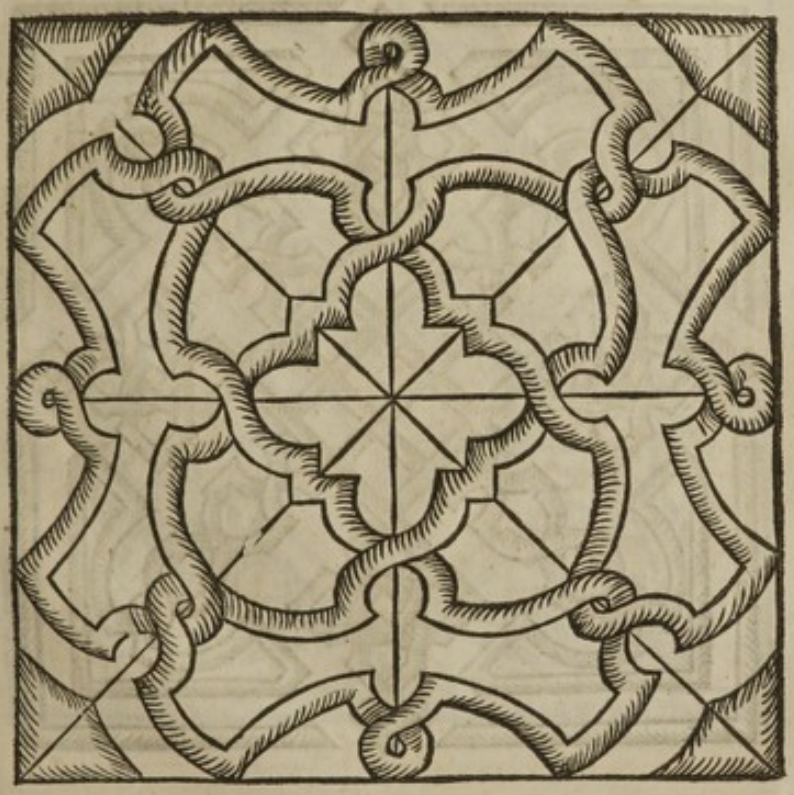
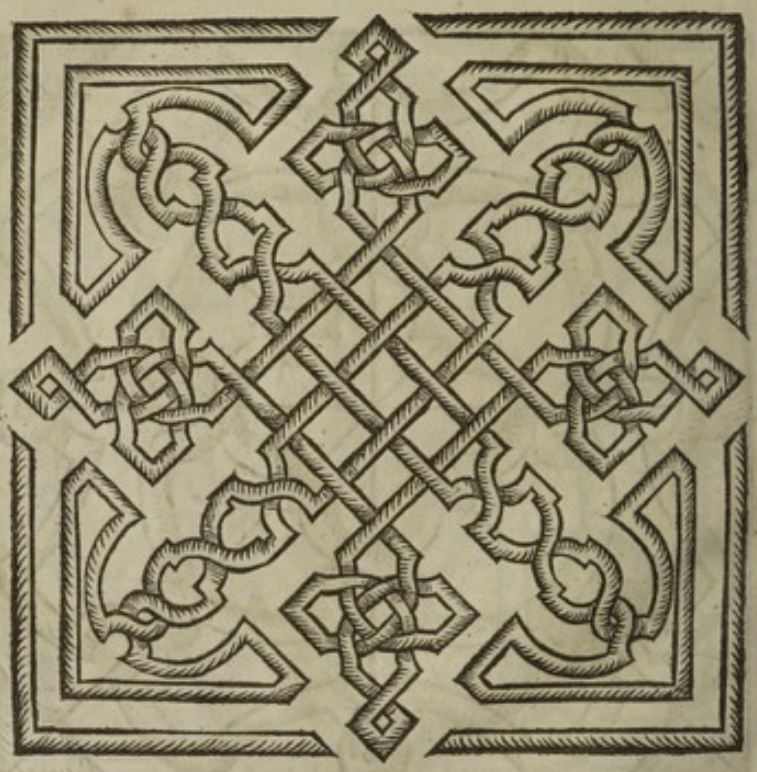


A ſimple proportion, or draught of a Knot.



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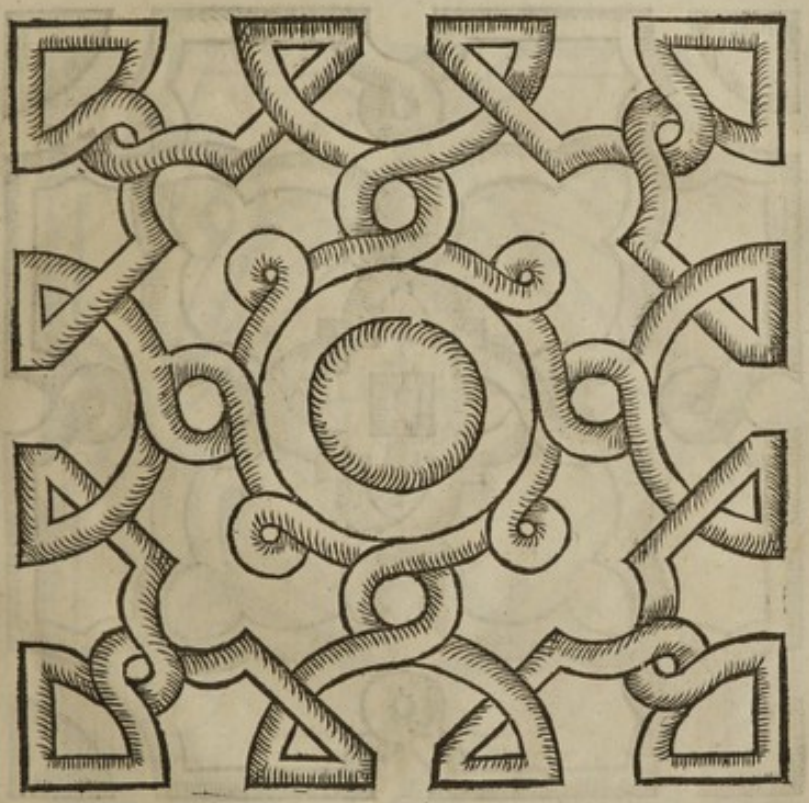

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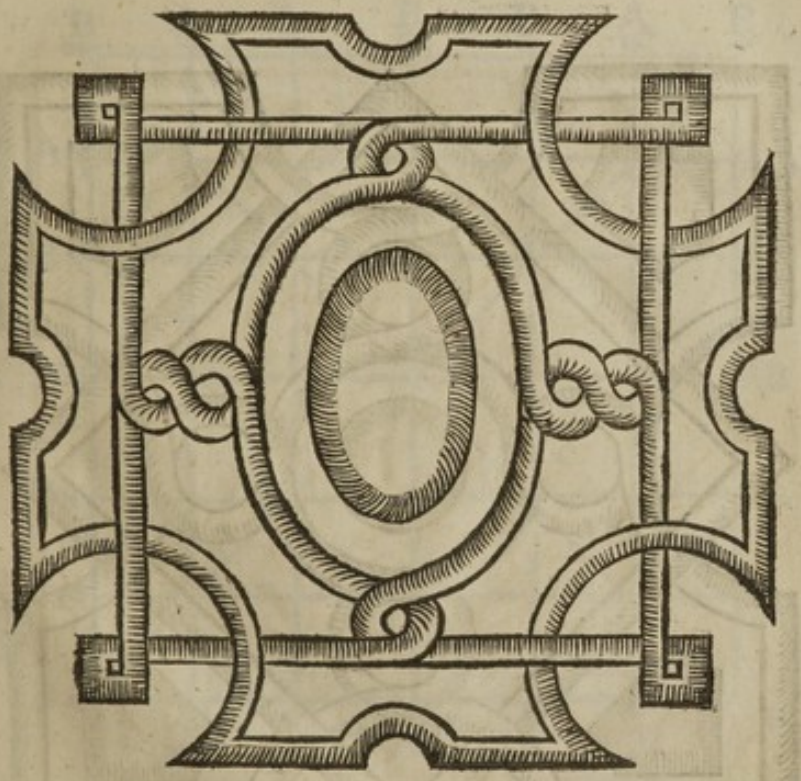

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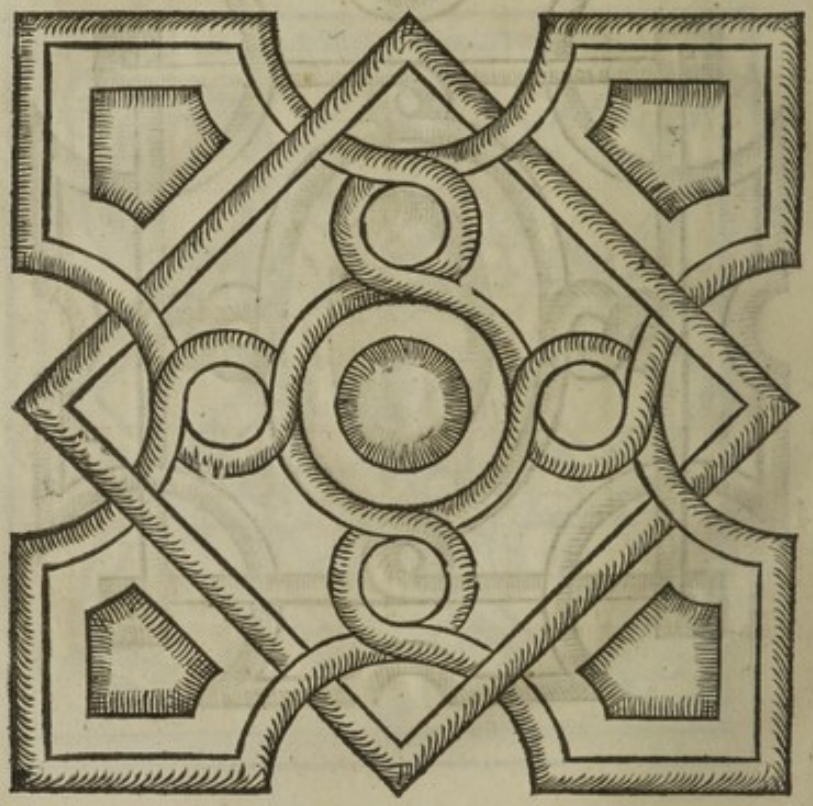
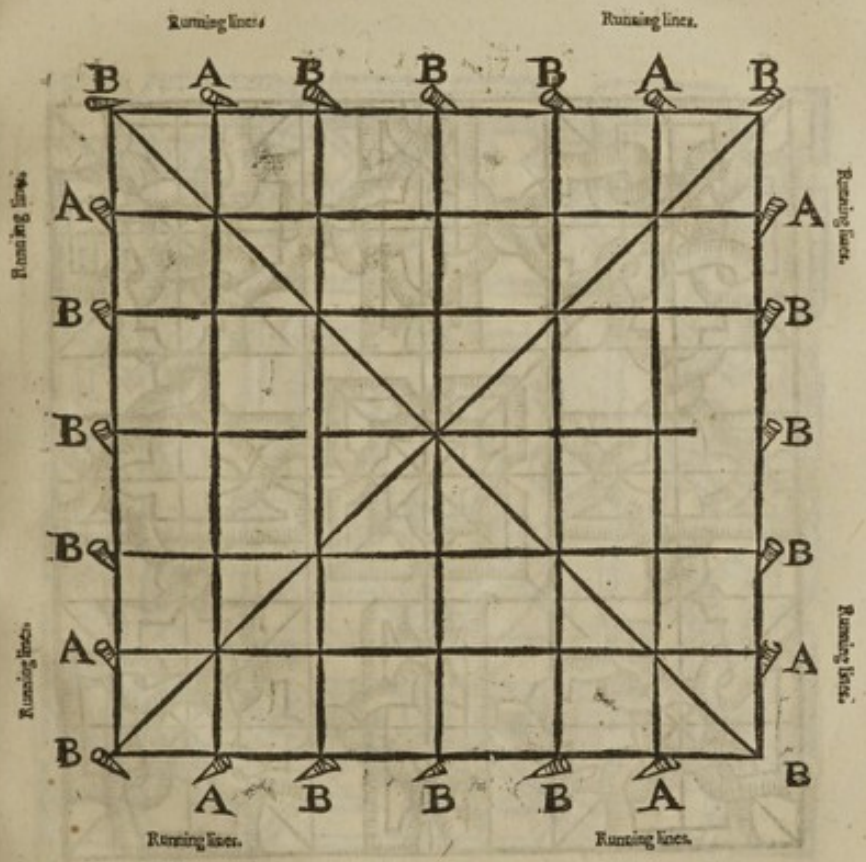
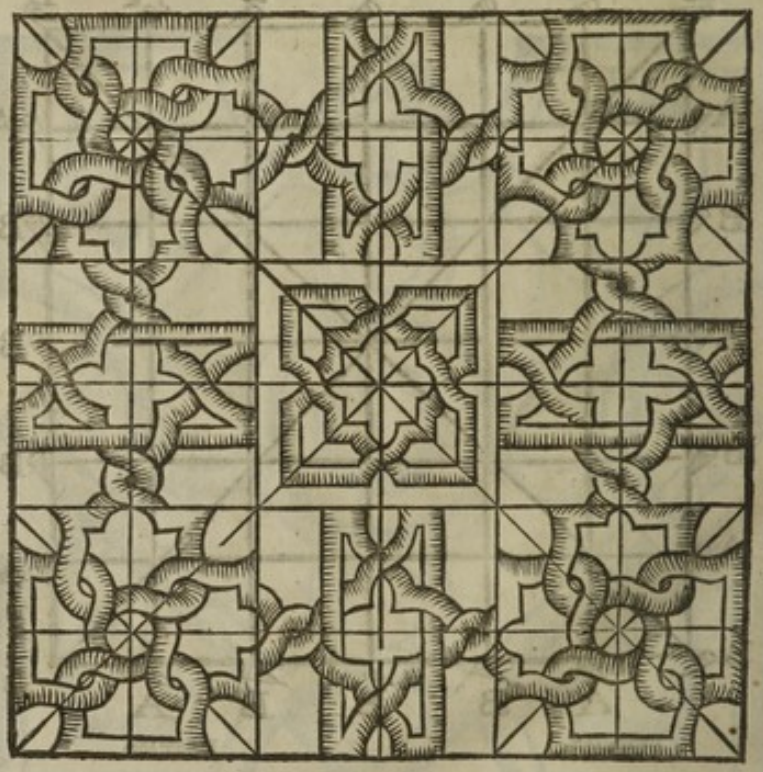


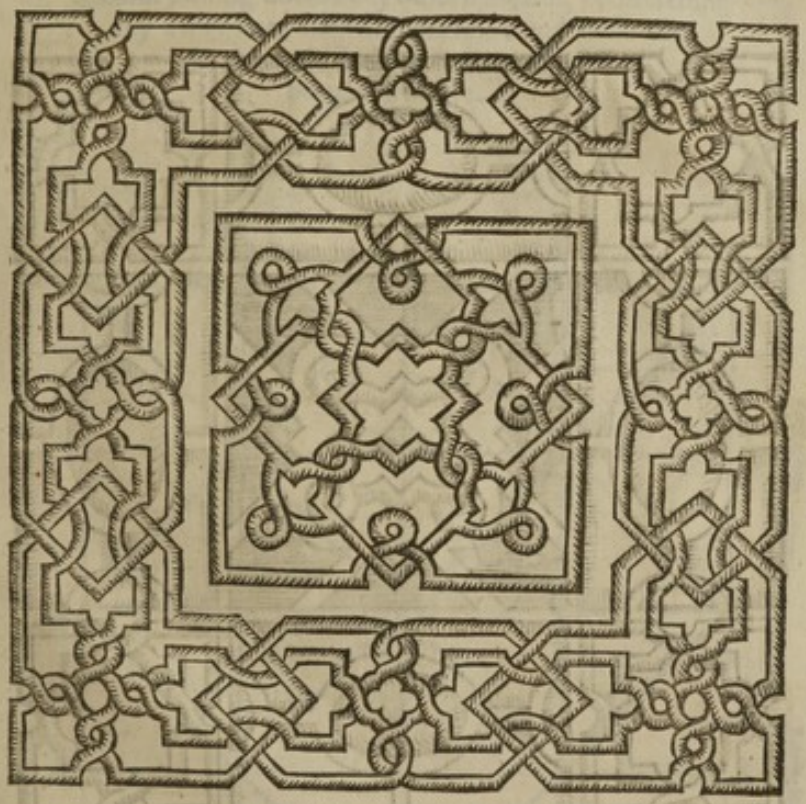
The way and maner to ſtretch the lines, to make a quarter with borders, and to make a border with ſquares broken and croſſed thorow the middeſt.



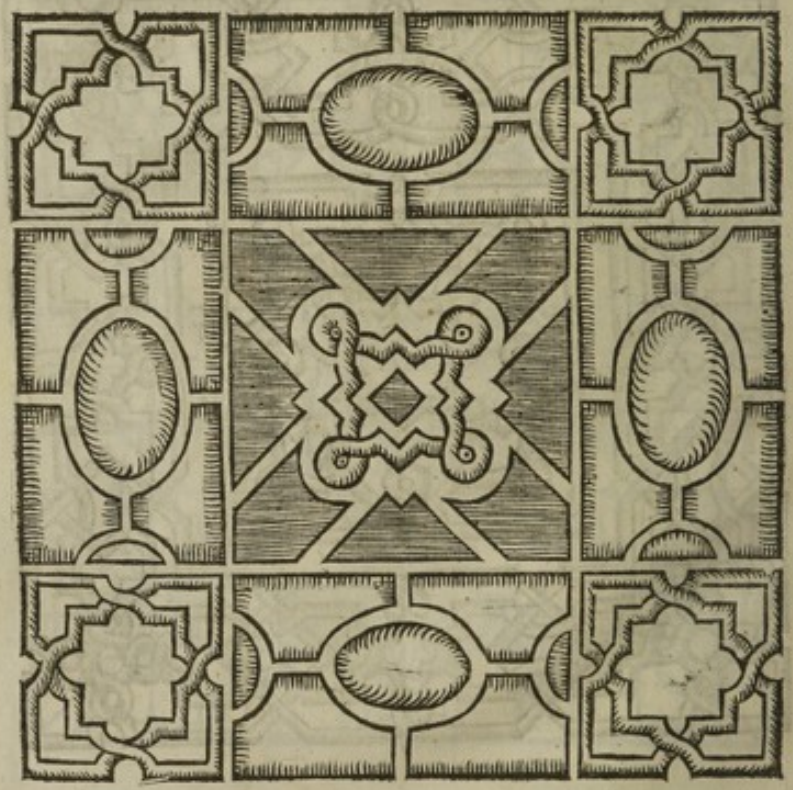
The manner of ſtretching your lines vpon a bor-
der with a ſeuered knot in the middeſt.



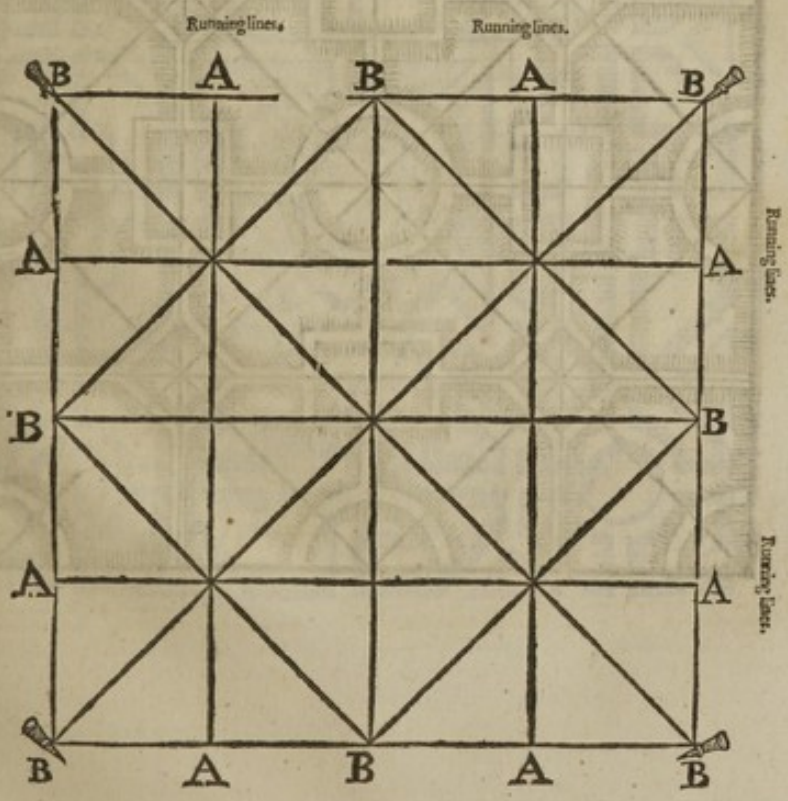
A border with his ſeuerall proportion in the midſt.



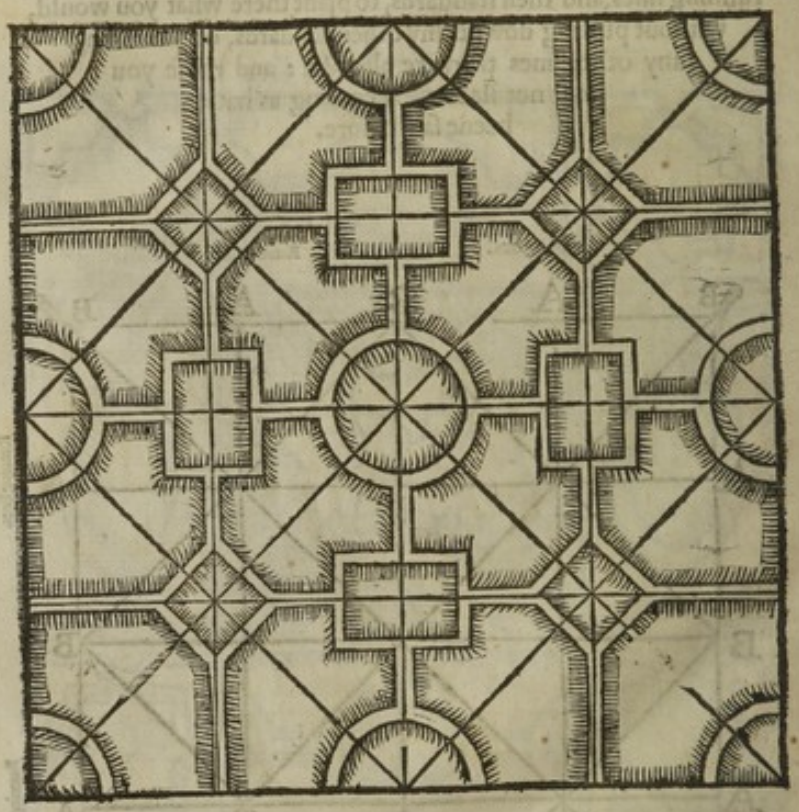
A border of broken ſquares, with a middle conſiſting of fiue proportions.



The manner to ſtretch the lines to make a quarter of broken ſquares. Let reſt and abide in their places the lines til you haue finiſhed the proportions. Take the meaſure of the ſtandards of a 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 alreadie: and thoſe you muſt not ſlacke, according as hath beene ſaid before.



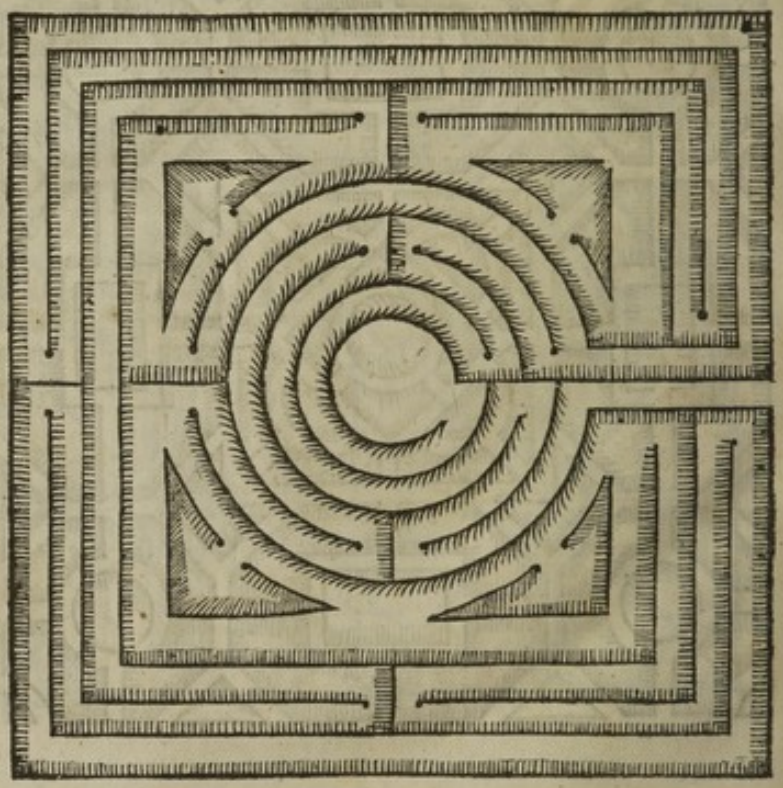
The manner of ſtretching the lines, vpon a quarter of broken ſquares.



A border of broken ſquares with the middle.

The forme and ſhape of Bilboquet, which is an inſtrument to take the meaſure of rounds, as we haue declared before.

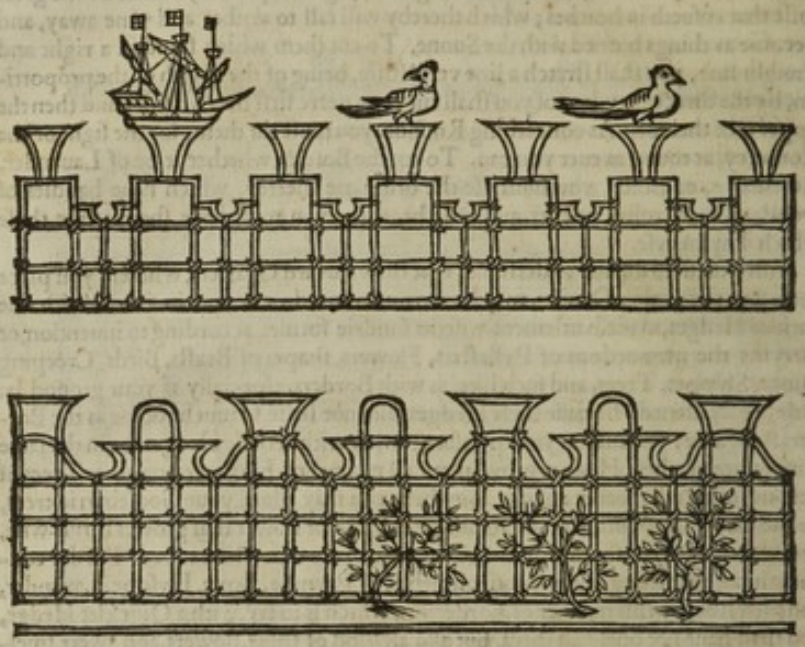
The forme of a Labyrinth.



When the hearbes, as well of the Borders, as of the Quarters, are growne vp, if they become too thicke set of leaues, and by their large spreading doe ouer-shadow the one the other, couer the small alleyes of the proportions, and therewithall spoyle and hurt the comelinesse 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 ensueth in hearbes, 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 verie stiffe, being of the length of the proportion, by the direction whereof you shall cut verie neere first the two sides, and then the vpper face thereof. As concerning Rounds, you must cut them, for the sight of the Countrey, 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 hearbes, you must haue sheeres like those which Taylors vse.

Now you shall againe vnderstand, that these inward Quarters, wherein you place these Knots, or other Deuises, may be circumferenced or bound in as well with fine curious Hedges, made battlement-wise, in sundrie formes, according to inuention, or carrying the proportions of Pyllasters, Flowers, shapes of Beasts, Birds, Creeping things, Shippes, Trees, and such like, as with Borders, especially if your ground be little, or straitened, because these Hedges take not halfe so much roome as the Borders. Againe, you may at your pleasure, either within these Hedges, or in the same Line wherein these Hedges grow, plant all manner of Fruit trees, or other Trees of anie curiositie whatsoeuer: and within them you may plant your Gooseberrie trees, Prouence Roses, Muske Roses, or anie other fruit or flower that growes shrub-wise, or not aboue two or three foot aboue the earth: So that whereas your Border containeth not anie thing but one entire hearbe, as Prympe, Boxe, Hysope, Lauander, and such like; by this manner of bordering, which is to say, with a Quickset Hedge, you shall haue not onely all them, but also all kind of fruits, flowers, and sweet smelling hearbs whatsoeuer: besides, they will keepe your Quarters and Knots in a great deale more safetie, because they are not so easie to be runne ouer, or broken downe, either by man, or beast, as your other Borders of hearbes are. Now, for the making of these Quickset Hedges, it is in this manner: First, you shall with fine small stakes, cut to the length and proportions of your worke, stake your Quarters about: then with small poles, bound to those stakes either with strong Wyar, or Oziers (but Wyar is the better) make a Lattice-worke, about two foot aboue the earth: then with shorter poles and wands, made plyant for your purpose, fashion your battlements of what shape soeuer you please to haue them; whether made plaine, or pyllaster-wise, or in semicircles, or other proportions, in such manner as you intend your Hedge shall grow: and this done either in Autumne, or the beginning of the Spring. Alongst the bottome of this Hedge you shall set Prympe, white Thorne, Eglantine, and sweet Bryer, mixt together, and as they shoot and grow vp, so you shall wind and plash them within the Lattice-worke, making them grow and couer the same; euer and anon, as need shall require, either with your Sheeres, or Hooke, cutting them to that shape and proportion to which you first framed your Lattice-worke, and this will in two or three yeares bring your Hedge vnto such perfection, that besides the beautie thereof, the defence will be so good, that you shall not feare the harme that Dogges, Swine, or other Cattell may doe, if at anie time they shall chance to breake into your Garden. These Hedges are also verie excellent to set alongst your Alleyes, or other Walkes, and adde a great beautie thereunto. There be some that make these Hedges onely of Oziers, or small Sallowes, planted crosse-wise, or otherwise, as your inuention pleaseth, and these Hedges are good, and beautifull, and verie speedie in their growing, but they are not of any very long continuances: therefore, except your ground be very moist, the former Hedge is much the better. Which that you may the better know how to make, I will here set you downe the models of a couple of them;

by the example whereof, you may at your pleasure make anie other proportion whatsoeuer: and you shall also vnderstand, that these two Models containe but the dead worke onely, which is to be made of Poles or Wands, and the Quickset to be planted close vnto it, and so placed within the dead Lattice-worke, as you may here perceiue.



Chap. LI.

Of the manner to keepe and preserue Hearbes, either for the vse of the Pot, or of Physicke, or such as are of a sweet smell and sauour.

The preserving of the root of Elecampane.

THe root of Elecampane is preserued after this sort: When you haue taken vp the root in the moneth of October, at such time as it is verie ripe, you must first take away all the sand and earth which is about it with a rough Linnen Cloth, or with a Strainer: after that, you must scrape it all ouer with a verie sharpe knife, and according as the rootes are of bignesse, to cleaue them in two, three, moe or lesse pieces, of a fingers length, and boyle 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 therewith, 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 carefully looke that the rootes thereof be made verie cleane, and then cut in two or three pieces, of a fingers length: then afterward, for the space of a whole day together, you must infuse them in water vpon hot embers, and afterward boyle them with twice or thrice as much Honey, or Sugar.

There

There may likewise conserue be made of the root of Elecampane after this manner: Make verie cleane the roots of Elecampane, as wee 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 cloth or Strainer, and in the end boyle them vp with thrice as much Honey or Sugar. *Conserue of Elecampane roots.*

You may in like manner preserue and conserue manie other roots, as Gentian, Pionie, Corne-flag, wild Vine, Parsneps, Althæa, or marsh Mallowes, Turneps, Carrets, Radishes, Nauets, Caraway, Eringus, and such other like, all which will be the more pleasant, if you put vnto the conserued or preserued a little Cinnamon. *Preserues and conserues of Gentian, Pionie, Corne-flag, wild Vine, Parsneps, Turneps, & Althæa.*

Lastly, be it knowne, 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 manner of ordering things, whereby they are stamped and beaten verie small. *The difference betwixt preseruing and conseruing.*

Purslaine is preserued in this manner: Gather Purslaine before it haue cast the seed, take the tendereſt stalkes thereof, and the fullest of leaues, from these you shall take the roots, and wash them throughly from the sand and earth that might hang about them: afterward drie them a little, euen so long, as till you perceiue them to begin to wither: afterward put them vp handsomely in some Barrell or little Vessell of earth, in manner of little Beds, euerie Bed sufficiently couered with salt. When the Barrell or Vessell shall be full, powre thereinto a sufficient quantitie of Vineger, or else one part of Veriuice, and two of Vineger. This being done, set the Vessell in some drie place, and not moist, for feare that the preserue should smell anie 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 Salads with Salad oyle. After the same manner, Samphire, the sprouts of Asparagus, Harts-horne, Trick-madame, Broome flowers, the flowers of Capers, Cucumbers, Limons, Oranges, Plummes, Peares, and such like, may be preserued. *The preseruing of Purslaine.* *The preserue of Asparagus, Harts-horne, Trick-madame, &c.*

Lettuce is preserued after this sort: They take the stalkes of Lettuce 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 be put vpon them dried Dill, Fennell, a little Rue, and Leekes chopped small: after all this, the said 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, 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 need. After this fashion may Succorie, Scariole, Harts-horne, the tender shoots of Brambles, the young and tender croppes of Thyme, Sauorie, Organie, and Radishes, be preserued: and such preserues must be made in the beginning of Summer. *The preseruing of Lettuces.*

The hearbes preserued with salt and vineger are chiefely ordained for Salads; but these that are made with sugar and honey, doe serue for the vse of Physicke: such are those which follow hereafter.

There is but verie seldome any preserues made of the flowers and leaues of herbes: I vnderstand by this preserue, taken properly, the preseruing of things whole, and not stampt and beaten into one bodie: notwithstanding, who so is disposed to preserue the flowers or leaues of hearbes, may doe it in this fashion: Take the leaues or flowers of such herbes as you will preserue, make them very cleane; afterward, without *What is meant by the word preserue.* *The preseruing of hearbes and flowers.*

anie 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. Alſo in this ſort boyle them at a ſmall fire with Sugar, ſo long, as till the Sugar become as thicke as a ſyrrup, and after put them in a veſſell. Otherwiſe, after that you haue diligently cleanſed the leaues or the flowers of the hearbes, put them in an earthen pot or glaſſe, and after poure into them of boyled Sugar of the conſiſtence of a ſyrrup, and well clarified. Thus may Roſes, leaues of Mints, Spleenewort, Maiden-haire, Sorrell, Ceterach, Bugloſſe, and ſuch like, be preſerued: the flowers of Marigolds, Succorie, Violets, Broome, Sage, and other ſuch like: and ſuch preſerues are more acceptable than conſerues, becauſe the flowers and leaues doe in better ſort retaine and keepe their naturall ſmell thus, than in conſerues; for in conſerues they are powned with Sugar, which doth rebate verie much the naturall ſmell of the leaues or flowers.

Preſerues are more delightſome and acceptable than conſerues.

Now as concerning making of conſerues of leaues or flowers of hearbes, 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 Mints, Spleenewort, Maiden-haire, and ſuch like, make them verie cleane, and bray them afterward in a Marble Mortar, or of other Stone, with a peſtle hard and ſolide ynough, and that ſo long, as till they become in manner of a paſt, and then put vnto them twice or thrice as much Sugar or Honey: 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, 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 heat of the Sunne; but they muſt be ſtirred euerie day. Or if you had rather, doe thus: Set the Veſſels vpon hot aſhes, to the end they may take a little boyle: 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, Marierome, Balme, Scabious, Elder tree, Mints, Fumitorie, Eye-bright, Succorie, of the flowers of the Peach-tree, Sage, Broome, Oranges, Mallowes, Hollyhocke, and other ſuch like, the toppes of Thyme, Hyſope, and Wormewood; the conſerue whereof, we haue ſaid before to be verie 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 for as much as the conſerues of Violets and Roſes are in great vſe and requeſt, we will ſpeake particularly 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 thrice 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 almoſt euerie day. If you would make conſerues of drie Roſes, boile in halfe a pound of Roſewater 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, boyle them altogether reaſonably, and after with a ſpatule of wood you ſhall make your conſerue into morſels or cakes. Otherwiſe, make three infuſions of Roſes in Roſewater, let the third ſettle, the bottome whereof you ſhal let alone, as being the earthie and groſſe part, taking that onely that is aboue, and in it you ſhall boyle fine Sugar: and after that, you ſhall caſt thereinto halfe an ounce, or thereabout, of dried Roſes in powder, and doe 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 new 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 bray them in a Stone Mortar with twice ſo much Sugar, and put them in a Glaſſe veſſell, which ſhall be ſet to Sunne for the ſpace of three moneths, and ſtirred verie oft during the ſaid time, as hath beene alreadie ſaid of the conſerue of Roſes.

If

If you would make conserue of drie Violets, make one or two infusions of Violets, and in them boyle fine Sugar, afterward casting halfe an ounce of powdred Violets to one pound of Sugar: then boyling them a little together, you shall with a spatule make your conserue into morsels or cakes. *Conserue of drie Violets.*

For to make Mustard, you must picke and cleanse your seed verie well, searce it, wash it in cold 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) drie 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. But the most ordinarie way for the making of your Mustard, is, onely to wash the seed verie cleane, then put it into your Mustard Quernes, and grind it either with strong vineger (which is the best) or with good Beere or Ale, or with Butter-milke; onely the Beere will make it eat a little bitter whilest it is new, and the Butter-milke will die soone. Some make a verie pleasant Mustard in this manner: Take two ounces of the seed of Senuie, halfe an ounce of Cinnamon, pownes them verie small, and with honey and vineger make a paste, and of the paste little loaues, which you shall drie 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 said alreadie: after they put it in little Barrels, such as Mustard of Aniou is wont 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. *The making of Mustard.* *Mustard of Aniou.* *Mustard of Dijon.*

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 else hang them in some Vessell wherein is a little Vineger, but so also the Vessell must be verie well stopped. Some preserue them in an earthen Vessell with Salt, Vineger, and Marierome. Others cast them into sandie Pits, and couer them with the seed of Senuie bruised with Vineger, and after that put vpon them drie hay and earth. *Preserving of Cucumbers.*

To preserue Gourds, take them when they are tender, and cut them, then powre vpon them warme water, and let them coole in the open ayre for a nights space: after that sowce them in strong salt Brine, and so you shall preserue them a long time: or else drie them in the Sunne, and after hang them vp in some smoakie place. In France they are preserued all Winter, being hanged vp vnder some chamber floore, or set in rowes vpon planks, especially the Citruls. *The preserving of Gourds.*

To keepe Onions, you must drie them in the Sunne, and afterward put them in some drie place, and well ayred. Some preserue them after this manner: First they drie 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 shall be 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 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 yeare in vineger. But there is no better way to preserue or keepe Onions long, than after they are first gathered to spread them thinne vpon a boorded floore, where they may receiue both Sunne and Wind: and then, after they are sufficiently dried, to bind them vp in long Ropes or Bundles, and so hang them neere the ayre of the fire, as ouer your Kitchin chimney, or such like. *How to keepe Onions.*

Chap. LII.

A briefe discourse of small and great trees, as well strange as growing in the Countrey, 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 onely recreation of the chiefe Lord of the Farme (as hath alreadie beene said) and seeing that this his recreation cannot be altogether so great and so sufficient in the onely smell of flowers and sweet hearbes, as and if there be withall presented vnto the sight the view of strange and Countrey-borne trees, both great and small; which doe not onely yeeld a more pleasant smell, without comparison, than the hearbes, but doe also (the greatest part of them) bring forth fruits of great wonder and admiration, as Pomegranate-trees, Caper-trees, Citron-trees, Orange-trees, Limon-trees, Citron-trees of Assyria, Date-trees, Figge-trees, Oliue-trees, bastard Sene-trees, and others such like. Therefore, to the end we may leaue nothing out of our Garden whereof the Master of the House may reape anie solace, we will speake briefely of handling and husbanding of great and small Trees which must be planted in it: of which, some are imployed as necessarie about Arbours, and the Garden is to be set about with them; they are the Cypresse-tree, Iuniper-tree, Sauin-tree, Cedar-tree, Rose-tree, Box-tree, and others: otherfome are sowne, or set, and remoued vnto Beds only proper vnto them, or into Vessels and Cases, as the Bay-tree, Mulberrie-tree, Date-tree, Pine-tree, Citron-tree, Orange-tree, Limon-tree, Figge-tree, Oliue-tree, and such like, which shall be spoken of hereafter.

The Cypresse tree.

The Cypresse-tree, as well the male as the female, notwithstanding that in the Isle of Crete it doth grow in great Tufts and Forests, without anie sowing, or planting, of his owne accord: yet in this Countrey it cannot be got to thriue, without the great paines of the Gardiner, and notable goodnesse 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 sowne in a drie ground, farre from Flouds, Riuers, Marishes, dyrtie, and moist places, and on the tops and sides of Hills where the Sunne shineth, better than in valleyes. 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 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 wonder of Nature in the seed of this tree, which, though it be so small as that one can scarce see it, yet it bringeth forth so goodly and so tall a tree. When you sow it, you must sow it in furrowes, from after the twentieth of October vntill Winter: and neere vnto it, some Barly; for there is such great familiaritie betwixt these two seeds, that they grow (as it were) in spight one of another: whereupon it will come to passe, that when it is a great Barly yeare, it will be also a great Cypresse yeare. 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 anie wound, be it neuer so little. This tree hath a male and a female: The male groweth more high, hath his braunches and boughes more close and straight together, and bringeth forth Fruit, or Nuts, but so doth not the female.

The Cypresse-tree beareth fruit and flourisheth three seuerall times a yeare, as in Ianuarie, 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 seed, which you must likewise drie in the Sunne: And if you be desirous to sow it (the fit time for which is Aprill in verie hot Countries, and May in temperate ones, and

and in this Countrie from the twentieth of October vntill Winter) you must chuse a drie, faire, and calme day; and being sowne, 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 watchful ouer the Ants, and 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 verie seldome, for often watering of it would make it die: but in steed of this, it must be carefully weeded, pruned, and digged, but without touching of the root: neither must you goe vpon it, for treading vpon it with your feet killeth it: and whereas for the first and second yeare it is verie 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 wee haue said of Melons: the laying of the earth light about it spoken of before, is to be vnderstood of the time of his young yeares, and whiles it is growing: for after it hath once perfected his sciences and bowes, it hath no more need either of that or any other labour and helpe. It is wont to be remoued being betwixt fiue and sixe yeares 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 be remoued must be made wide, and that somewhat more than it selfe is broad in the roots, and in a moist countrie it must be but a little depth, vvhereas in a drie countrie it may be two foot deepe. The Gardener must be carefull to keepe it from ants, because this little vvorme loueth Cypres aboue all other things, and causeth it oftentimes to die.

The vvood of Cypres is better than any other to make coffers, chests, cabinets, and presses of, because besides the good smell which it yeeldeth, it endureth an infinit long time without corrupting, moulding, or rotting any thing at all, and it is such an enemie to all vvormes and vermine, as that the leaues and nuts thereof being laied amongst clothes, doe free them of vvormes. The leaues and seed are verie much commended for the killing of vvormes in children. The decoction of the nuts in vinegar doe assuage the tooth-ach, if the mouth be often washed therewith: the decoction of the leaues vworketh the like effect: the ashes of Cypres nuts, and the horn of an Asses hoofe mixt vvith oyle of Myrtles, keepe the haire from falling. The decoction of new and fresh gathered Cypres nuts made in old vvine, doth exceeding good to them vvhich 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 vvith 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 young sciences of the Cypres-tree, if they be so chawed, as that thereupon their juice may descend into the bodie. *The vertues.*

The Rose-tree fitteth it selfe for all manner of ayre, vvhether hot or cold, but in countries that are hot and 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, vvhere 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 cold and moist countries; yea and also in March, and such as are planted in the later season, vvill put forth Roses the same yeare, vvhich vvill not fall out in those vvhich vvere made hast of and planted a great deale sooner: if the earth be good of it selfe, the Rose vvill craue no manure, but yeeld a more perfect smell, but and if it be spent and vworne 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 vvild ones, vvhich we call Eglantine, and the red also growing in hedges: Damaske of the colour of Scarlet, vvhich vve call Prouence Roses: and amongst the braunches, besides the vvild ones there are, Muske-Roses, Common-Roses, and Roses hauing fiue leaues onely.

The

The Rose-tree sowne.

The Rose-tree groweth either of plants or seed. It is planted of shoots, or little rods, diuided into pieces of the length of foure fingers, and set into a well manured earth a foot deepe. It is good to remoue it, for it will grow the fairer: as also euerie yeare, or at the least when it is past fiue yeares old (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 young yeares againe. If you remoue it, remoue it by branches, setting the one foure foot distant from the other, in a ground that is not fat or clayie, nor moist, but drie and stonie. The Rose-tree sowne, groweth slowly: but yet and if you sow it, let it be foure foot within the ground: and deceiue not your selfe with the seed; for the seed is not that little yellow flower which is in the middest of the Rose, but that which is contained and nourished in the little fruit which the Rose bringeth forth after Vintage, which is knowne to be ripe when it groweth blacke and soft.

Seeds of Roses.

For to haue Muske Roses, you must graft the Rose-tree vpon it selfe, 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 drie leaues of sweet smelling Roses. Such Roses are pleasant to behold, as being but a little tree, and yet laden with leaues, the flower verie sweet of smell, and such as will neuer faile, but alwaies hold and bring forth in their season: besides that, a man may fit the root and branches thereof to make a shadow. Such Roses are not good to make conserues, or distilled water, nor for anie vse in Physicke, onely they are good to drie and put amongst Linnen and other Apparrell, because of their good smell. It is true that some say, that they loosen the bellie. Looke further in the third Booke in the Chapter of the speciall properties of Grafting and Planting.

Verie sweet smelling Roses.

Early, hastie, and timely Roses.

To haue Roses that shall smell verie sweet, you must plant your Rose-tree in a place that is verie drie, or else to set it round about with Garlicke. The Roses will come early, 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 forth his buds. You shall doe the like if you plant your Rose-tree in baskets, or pots of earth, and order them after the manner of timely Gourds and Cucumbers, as hath beene taught before.

Fresh Roses.

You may keepe new Roses in their liuelinesse, if you put them in the lees of Oyle, so as that the lees may swimme aboue them: Others pull vp greene Barly, roots and all, wherein 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 Colewort stalke, or vpon the bodie of an Oake, but then the Roses will haue no smell.

To make carnation Roses white

You may make the Carnation Rose white, if you perfume it with Brimstone at such time as it beginneth to spread.

You may haue Roses of a yellow colour, if after you haue planted the Rose-tree vvith his naturall earth neere vnto the broome, you bore through the broome stalke vvith a vvimble, and plant in the same hole diuers roots or shoots of the Rose-tree, scraped round about so farre as they are to lye in the hole, and after tie and make them fast vnto the broome plant with mortar: and whenas you see the hole bored in the stalke to be growne vp againe, you shall cut off the broome stalke aboue the place vvhere you bored the hole, and shall let the Rose-tree to put forth his shoots, and so by this meanes you shall haue yellow Roses.

The vertues of the Roses are sufficiently knowne vnto euerie one. Some distill the vvhite and Prouence rose, vvhich, if you vvill haue it to retaine the full qualitie and vertue of the Rose, together 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 syropes of carnation Roses, which haue force to loosen the bellie, and to purge the humours offending in serious and cholericke matter, as also good for tertian agues, the jaundise, the obstructions of the liuer, and beating of the heart.

The yellow growing within the Rose, which is a flower accompanied as it vvere

with

with ſmal haires, doth ſtay the vvhite flowers of vvomen: 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 ſeed and vvooll 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 vvater, for the diſeaſe called Gonorrhęa, taken the weight of a dram with ſowre red wine.

Box-tree is planted of ſhoots or boughs, after the twelfth day of Nouember. It delighteth in hillie places and mountaines, and groweth verie well in cold, drie, and vvindie 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 ayre by the ſtinking ſmell it hath, and for this cauſe it would be as ſparingly planted in the garden as poſſibly may be. *Box-tree.* *Bees-bane.* *A corrupt aire.*

Box-tree is better to make combes and other durable inſtruments of, than for to vſe in medicine, if it were not that Phyſitians doe hold that the ſcrapings or raſped powder of Box and the leaues thereof boyled 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 herein I referre my ſelfe rather to experience than to reaſon.

Broome, as well the ſmall as the great, is planted of ſhoots and boughs, in the increaſe of the Moone, about the Calends of March. It may likewiſe be ſowne, and it requireth a drie and ſandie ground. The flowers, as alſo the ſeed, doe prouoke vrine, and breake the ſtone, as well of the reines, as of the bladder: the flowers prouoke vomit, taken in a drinke: the leaues and crops boyled in wine or water, are good for the dropſie and obſtructions of the liuer, ſpleene, and kidneyes: ſome vſe the ſtalkes 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. *Broome.* *To make water.* *The ſtone.* *To vomite.*

Spaniſh broome groweth alſo in drie places: it muſt be remoued after the firſt yeare that it is ſowne: it is ſowne in Februarie, and remoued in March the next yere after: the flowers in decoctions procure vomite after the manner of white hellebor: the ſeed alone doth looſen the bellie, and forceth downeward great ſtore of water. *Spaniſh broome*

Furze grow in vntilled and ſandie grounds: the leaues boyled in water or wine do ſtay all manner of fluxes. *Furze.*

The Cedar-tree is verie rare in theſe countries: ſo that if you will haue it in your garden, you muſt aſſigne it a well husbanded ground, and lying open vpon the Sun, notwithſtanding the places where it is found moſt growing, be cold and moiſt mountaines, and full of ſnow: if you doe well you muſt ſow in pots of earth, and caſes or impaled places the ſmall and exceeding little ſeed that commeth thereof. *The Cedar tree.*

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 verie pleaſant to looke vpon, and to ſmell vnto, whereupon ſome vſe it in ſteed of perfumes.

Sauin is planted as box, 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 after-birth and dead child: they alſo cauſe to fall off the warts growing vpon a mans yard. *Sauin.*

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 winds, and pinched with cold, ſo much the fairer it groweth. The fruit thereof is good for the ſtomach, for weake and broken people, and againſt all ſorts of venime, whether it be drunke or taken in a perfume, as alſo againſt an euill aire: It is vvith good ſucceſſe vſed in the decoctions preſcribed againſt the pockes: take ſeuen Iuniper-berries, and as many Bay-berries, halfe a dram of Zylocaſſia, and a dram of Cinamome, put all this whole in the bellie of a Turtle-doue, roaſt the ſaid Turtle thus ſtuffed, and baſt her with Capons greaſe, giue euerie ſecond day one of theſe at ſupper, to a woman that is readie to be deliuered, and ſhe ſhall haue an eaſie deliuerie: boyle twelue pound of Iu- *Iuniper.*

niper

niper wood cut small, or raspt in a great cauldron, and in a sufficient quantitie of water to the consumption of the third part of the water, put this wood and water into a bathing tub, and let the partie troubled with the gout, sit in this water vp vnto the middle; he shall feele incredible reliefe hereby.

Elder-tree. Elder tree is fitter to plant in the garden hedge, than to make arbours 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 Nouember vpon sciences and shoots, 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 vvere into furrows of a good halfe foot broad, and a whole foot 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 foot of a Hind, and thrust downe into the ground thus prepared, a foot or nine inches deepe: and let it stand vp aboue the ground, at the least a foot and a halfe, or two foot, so as that in all, your plant must be two good foot and a halfe, or three foot long: before you put them into the ground, open it vvith a dibble, either of yron or vvood, so that the rind of the plant may not be torne, in putting of it into the earth. If you plant it in the furrows, there must be at the least three foot betwixt euerie furrow, and a foot betwixt euerie plant. Hauing once thus planted them, you shall neuer need to take any further paines vvith them, if you vvill not your selfe, but to cut it two joynts at the least euerie yeare for the space of the two or three first yeares, to the end the root may grow the greater: and the first two or three yeares being past, you may cut it from two yeares to two yeares to make props for vines: in any case you must lop it euerie yere, and cut away all the euill sciences and shoots vvhich it ill fauouredly putteth forth.

Head-ach. Some distill the vvater of the flowers, as singular to appease the head-ach comming of heat, if the brows or hinder part of the head be rubbed therewith. Some likewise doe make verie good vinegar vvith the flowers and juice of the berries. The juice pressed from the rind of the root, moueth vomit, and draweth forth the vvater that is in those that haue the dropsie: the juice pressed from the leaues and taken vvith some pottage doth loosen the bellie: 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 vvine, and continuing it a certaine time, and mixing therewith a little cinamome, because it is a procurer of vomit, and a disquieter of the stomach.

Rosemarie and Iesamin. Rose-marie and Iesamin are likewise fit for the adorning of arbours in quarters, of the ordering vvhereof vve vvill say nothing in this place, because vve haue before spoken thereof verie largely.

Iuie. Iuie, as vvell the great as the small, doth delight to be planted in moist and vvaterie 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 old ruine, vnto both vvhich in the end it vworketh ruine and ouerthrow. It vvill bring forth a goodly fruit, if you straw it vvith powdred Allome, or ashes made of burnt Oyster-shells. Blacke Iuie vvill become vvhite, if you vvater the root thereof vvith vvhite earth tempered vvith vvater eight daies together continually.

If you take three Iuie berries, and tying them vp in a cleane linnen cloth vvith a thread, giue them to some one that is troubled vvith paine and stifnesse of his spleene to vveare about his necke, the said partie so vvearing them three daies together vvill be vvhole and cured of his disease. The leaues brayed and applyed, doe heale burnings and scaldings made vvith hot vvater: boyled in vinegar and applied, they cure the hardnesse of the spleene: the gum thereof killeth lice and nits, and being annointed in any hairie place, causeth the haire to fall away. The vessells made of the wood of Iuie are singular to know if there be any vvater in the vvine, for the water vvill abide in the vessell, and the vvine vvill run out. Seuen Iuie berries, vvith as many peach kernels the skins taken off, boyled in oyle, and afterward stampt and

applied

applied vnto the temples and brows, doe assuage the head-ach comming from the braine: the juice of the leaues of Iuie drunke with red vvine, doth heale the swelling of the spleene: a cap made in forme of a head-piece or skull of the leaues of Iuie sowed together, and applied vnto the head of a little child 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 rind being cut, killeth nits and lice.

Priuet. Priuet groweth more than 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, vvhether of the bellie, matrix, spitting of bloud, and of the eyes, as also for all sorts of cankers: the same vertue hath the juice pressed out of the leaues, especially for the canker growing in the mouth. There is an oyle made of the flowers thereof infused in oyle in the Sun, which is singular good for the head-ach comming of a hot cause, and also for inflammations.

Chap. LIII.

Of Hearbes for the Arbours of the Garden.

The wild vine. FOr want of trees of low growth (such as haue beene spoken of here before) you may helpe your selfe in the making of your Arbours for your Garden of Pleasure, with certaine hearbes which are plyant, and with their leaues apt to make shadow, still prouided, that they be borne vp by poles of Willow, or Iuniper, dressed and ordered in forme, and after the manner of Arbours: They are such as follow; the wild Vine, Hoppes, Gourds, Cucumbers, the maruellous Pease, Winter Cherries, the maruellous Apples, and other such like.

And as concerning the wild Vine, it groweth more plentifully than a man would wish amongst the Brambles and Bushes: and therefore from hence it may be transplanted and remoued into your Garden for the benefit of your Arbours. The root, especially the iuice, doth mightily loosen the bellie, prouoke vrine, purge the braine, open the spleene, and take away the hardnesse thereof: applyed in forme of a Pessarie, it bringeth downe the termes, the after-birth, and dead child: stamped with salt, and applyed, it healeth vlcers, it cleanseth the skinne, and taketh away the red pimples of the face: for which purpose also seruetb 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 alreadie 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 mixed and stamped with Bulls bloud, it is of maruellous effects in hard and schirrous swellings, and cankerous tumours.

Cucumbers and Gourds. We haue spoken heretofore of cucumbers and gourds: and therefore it is not needfull to make any new repetition.

Hops. The ordering of hops is like vnto that of the wild vine, for one and the same ground and dressing vvill serue both. The flowers, crops, and juice 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.

Maruailous apples. Maruailous apples are verie fit to ouerspread arbours, as well in respect of their beautie, as for that they are pliant, and winding easily about the poles. They would be sowne in the Spring time, in a fat and well battilled ground: they cannot endure the cold: so soone as their fruit 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,

them, and water them oft in the time of great heat, gathering their fruit in September. These apples resemble little lymons, as being sharpe pointed at the end, great bellied in the middest, rough as wild Cucumbers, greene at the beginning, but afterward turning red: the first that euer brought them into France, was *Rene du Belluy*, Bishop of Mans. They haue also beene found in the gardens of the religious of S. Germanes in the fields, and in the Temple garden at Paris. They are called of the Greekes Gratious apples, because of their well pleasing beautie; and of the Latines, *Viticella*, *Momordica*, and *Balsamita*, this last name was giuen to them by reason of the vertues of Balme which they haue: and in French Maruailous apples, because of the maruailous vertue that they haue to heale wounds. Some take all the seeds out of the apples, putting the said apples into a viole of vnripe oyle oliue (or insteed of oyle made of vnripe oliues, which is not alwaies readie to be had at Paris, some wash common oyle verie well in Rose-water or Common water, or plantaine, or Mulberie water) and doe afterward set the said viole a long time in the Sunne when it is in his heat, or else they put it in a vessell of hot boyling vvater: or else burie it in the earth, or in horse dung, and this oyle is singular good to assuage inflammations of wounds, and of the breasts, and hath no lesse vertue than Balme to consolidate, or heale wounds either new or old, being a thing tried of many. The fruit soaked in oyle of sweet Almonds, or Linseed, adding thereto an ounce of liquid vernish for euerie pound of oyle, maketh the oyle verie soueraigne for the paines of the Hemorrhoides, Burnings, prickings of the sinews, 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 oyle wherein this fruit hath beene soaked, doth keepe in his place the fundament wont to fall downe in little children, if it be often rubbed therewith: it maketh barren women fruitfull, if after they haue bathed in a bath for the purpose, and drunke of the powder of the leaues of this hearbe, they annoint their secret parts with this oyle, dwelling afterwards with their husbands.

Hemorrhoides. Burnings. Gripings in the bellie. Colicke.

The falling downe of the fundament. To make women fruit full.

The maruailous pease are verie rare in this countrie, resembling somewhat Winter cherries, as hauing their seed inclosed in a little filme or skinne, like vnto a cich pease; in the middest whereof, there is the shape as it were of a heart. They delight in a very fat, moist, and well sunned soyle, and cannot abide to endure the cold.

The maruailous peason.

Winter cherries (which the Latines 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 soyle as would fit the vine. The little cherrie which is inclosed in the bladder, is singular good to prouoke the decayed vrine, and to take away the sharpnesse and scalding thereof, for the juice thereof mixt with the creame or milke of white poppie seed, or with the decoction of the seed of melons or gourds, mallows, or barly ptisane, and drunke, doth maruailously mitigate the scalding of the vrine: if the root 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 called Winter-cherrie wine, which is made with the new 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 filled vp with white wine new 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 vessells, and ordered as other wines: this wine taken the quantitie of foure ounces in the morning three or foure daies together in the decrease of the Moone, cleanseth the reines, and purgeth out great quantitie of grauell.

Winter Cherries.

Chap. LIIII.

Of Trees both great and ſmall, as well outlandiſh as of the ſame Countrie, being planted or ſowne either vpon beds or in veſſells, in the Garden.

THe Bay-tree will grow in all places, but it is not as eaſily preſerued and kept in euerie place: for it delighteth eſpecially and naturally in a hot or temperate countrie, for in a cold 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 Sunne, as that it may thereby ſhake off and better paſſe ouer the extremitie of the cold; and on the contrarie, 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 foot of it: notwithſtanding it delighteth much in places neere vnto the Sea, in leane and thin grounds, where the ayre 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: and in March it is planted verie fitly and ſeaſonably, when as the ſap putteth vp and commeth to the barbe. It may likewiſe be ſowne after the foureteenth day of March in a ground that is well manured, one foot within the ground and foure berries together: and at the yeares end, to remoue it to ſome other place. The Bay-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 cold, which although the boughes and braunches ſhould be dead by the cold of Winter, it would yet continue to bring forth new boughes in the Spring time: for the faſtneſſe and cloſeneſſe of the ground will haue let and ſtayed the ayre from hauing pierced vnto the roots. And in caſe the ground where you haue planted your Bay-tree ſhould be ſandie, drie, and barren, then it will be your part during the time of Winter to ſpread and caſt aſhes and ſtraw about the roots of the Bay-tree, to preſerue the heat of the earth, and to withhold the cold from piercing vnto the roots. Then for to procure a flouriſhing and faire Bay-tree, two things are neceſſarie, the heat of the ayre, and the faſtneſſe of the ground, of which, if the one be wanting, the Bay-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 Bay-tree may be grafted vpon it ſelfe, as alſo vpon the Dogge-tree, the Aſh-tree, and the Cherrie-tree, as we will declare more largely in the third Booke.

The Bay-tree.

The Bay-tree cannot endure cold.

Two things cauſing Bay-trees to proſper.

The Myrtle-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 later is the better: but euerie ſort of Myrtle craueth a hot Countrie, a light, ſandie, leane, and brittle kind of ground, and yet notwithſtanding this, it groweth well vpon the Sea bankes, as alſo vpon the ſides of pooles, lakes, and fennes. It is planted either of young boughs borowed and cut downe for the exceſſiue rankneſſe of them, after it is foure or fiue yeares old, or from the ſhoots putting forth at the root thereof, ſeperating them from the maine root ſo ſoone as they be put vp, and from after a yeare of their firſt planting to remoue them: or elſe of ſeed, rubbed and chafed betwixt your hands, and after thruſt into an old band or ſmall cord: the ſame buried all along according to that length that it is of in a furrow caſt a foot deepe, or thereabout, and well manured with rotten dung, and watering the place. The Myrtle-tree would be planted in the higheſt part of the Garden, for by his ſmell it maketh the place moſt delightſome: it may be ſowne alſo after the manner of the Bay-tree, but then it will not grow vp till after a long time. It will grow both high and faire, if you make it cleane and ſcoure it often round about, and it will bring forth much and great fruit, if you plant Roſe-trees neere vnto it, or elſe plant it neere vnto Oliue-

The Myrtle-tree.

trees, in the countrie where they grow: for the Myrtle 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 appeared by a Myrtle planted neere vnto a bath, which to euerie mans sight grew verie pleasantly and beautifully, though there were no reckoning or account made thereof. Myrtle-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 boughs: The Myrtle 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 fruit of myrtles without any kernell.

The fruit is called Myrtle-berries. It must be gathered when it is faire, euen a great while after the Rose is fallen and shaken. It may be grafted vpon another of his owne kind, and the white vpon the blacke, and the blacke vpon the Apple-tree, Medlar-tree, and Pomegranet-tree.

After vintage time, in the countrie of Prouence, where there is a great number of Myrtle-trees, the birds feed of the fruit of the Myrtle-tree, and thereby become so fat, and their flesh so pleasant to eat, as that men eat 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 than the flesh.

The leaues, bayes, or berries of myrtle-tree by their astringent force and facultie doe stay all manner of fluxes, whether it be of the bellie, or of the termes, or principally of the whites: the iuice and distilled water of Myrtle-tree are singular good to drinke, to keepe vp the falling fundament. The decoction of the seed of Myrtle-tree, doth blacke the haire, and keepeth it from falling. The berries of the Myrtle-tree may serue in steed of pepper, the sauce made therewith worketh the like effect, and is singular good to comfort a languishing stomach: myrtle berries eaten do comfort the heart, and cure the beating of the same: the ashes of the drie leaues of myrtle-tree burned within a pot of raw earth, so throughly as that they become white, being afterward washed, haue one and the same vertue that *Spodium* or *Pompholix* hath.

The Myrt-tree.

If you cannot make the myrtle-tree to grow in your garden, you must content your selfe with the Myrt-tree, which craueth the same ground and manner of ordering that the Myrtle-tree, as being a kind of wild Myrtle-tree) and which may be vsed in the steed of Myrtle-tree vvhen it cannot be come by, as hauing the same or else like vertues.

Butchers-broome.

Butchers-broome is also a kind of wild myrtle, which groweth commonly in Forests and Vnderwoods, from whence it is better to translate it into your garden, than either to sow or plant it.

Tamariske.

He that is desirous to plant Tamariske in his garden, must make choyce of the moist and wettest ground, 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 roots or sprouts, and that from the first of October, till the foure and twentieth of December, yea vntill the beginning of Februarie; but yet it thriueth best being set of roots: there is no frost almost that will hurt it, especially the root, for when it is once taken, it putteth forth continually branches and boughs along the plant.

The wood is principally commended, for that it assuageth and diminisheth the spleene in such as haue it stopt too full of melancholicke humours: and hence it commeth that many troubled with that disease, doe eat and drinke in vessells made of the wood thereof. And some likewise doe counsell to giue swine that are troubled with too much fulnesse of the spleene, water to drinke in their troughs, hauing first quenched therein coales made of the wood of Tamariske. The decoction of the root 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 Latines *Colutea*) delighteth in a fat ground, and well battilled

battilled with Sheepes dung. It groweth not planted, but vpon ſeed: and it is meet that the ſeed be ſteeped firſt a long time in water, euen vntill it begin to ſprout. The time to ſow it, is about the beginning of the moneth of Iune. It muſt not haue any of the branches cut off, nor be pruned or touched before the fourth yeare. The fruit ſerueth to good vſe for the fatting of Sheepe, and maketh them to haue much milke: it is good alſo to fat chickens, bees, goats, and kyne. Some take it to be Sene, but they doe greatly deceiue and beguile themſelues.

The Caper-tree in many countries groweth without any tilling, in earable ground: but where it wanteth, if it muſt be ſowne, it muſt be in a hot countrie, and a drie, ſtonie, and ſandie place, which ſhall before hand be incloſed with a little ditch, which ſhall be filled with ſtone and lyme, or elſe with fat earth, for to be a fortreſſe and defence vnto it, that ſo the roots of the Caper-tree and thereby all ſhoots that might grow vp from them, may be kept from breaking forth, and ſpreading further than this ditch: for if they ſhould be ſtayed and kept backe from ſpreading by ſome ſuch meanes, it would come to paſſe that within a ſmall time they would ouer-runne the whole Garden, and plant themſelues in euerie corner of the ſame. Notwithſtanding the Caper-tree is not ſo noyſome in that reſpect (becauſe it may be pulled vp) as it is by inueniming (I know not by what venimous humour or iuice) the whole ground, and making of it barren. It hath no need (except a verie little) to be any way tilled or faſhioned: for it groweth well ynough (without any thing done vnto it) in fields and deſart grounds. It may be ſowne in the Spring and Autumne. *The Caper-tree.*

The fruit of the Caper-tree, as well the great as the ſmall, is good in a ſallade to prouoke appetite, cleanſe the flegmaticke ſtomach, and to take away the obſtructions of the liuer, but principally of the ſpleene: the rind of the root and leaues haue the like vertue, but more effectually. Capers both the great and the ſmall, whiles they are yet greene and not ſalted, doe nouriſh a great deale more, both of them are in requeſt, not ſo much for that they are fruit, as for their manner of preſeruing, which is performed either with vinegar, or elſe with ſalt brine: for Capers not pickled are of a verie ſharpe and vnpleaſant taſt, but the vinegar wherein they are preſerued doth make them verie acceptable vnto the ſtomach: but the great ones becauſe they haue both more iuice and more pulpe, are a great deale better than the little ones: though the little ones are more delightſome to the taſt than the great ones, becauſe they are fuller of vinegar than the great ones.

Agnus Caſtus, ſeeing it commeth verie 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 flowers, are ſingular good for them which would liue chaſtly, taken inwardly, or applyed outwardly: for ſome ſay, that the leaues, ſeeed, or flowres, put into little bagges, and applied vnto the reines in bed, do helpe to keepe the chaſtitie of the bodie, 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, as well in drinking as in fomenting it, as alſo againſt the obſtructions of the liuer, ſpleene, and matrix. If you carrie 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. *Agnus Caſtus.* *Chaſtitie.* *Heat of Vrine.* *The burning heat of the ſecret parts.*

Beane-tree, or S. Iohns-bread (bearing a long, flat, and broad fruit, like vnto that of Caſſia) would be planted of new ſhoots, in Februarie and Nouember, in a drie ground, lying open vpon the Sun, and where as there are verie deepe ditches made. It may alſo be grafted in a Plum-tree, or Almond-tree: in any caſe you muſt neuer thinke vpon the ſowing of it, becauſe ſo it would neuer beare any fruit, but would die verie quickly: it muſt be oft watered. *Carob or Beane-tree.*

The Cods are good either to fat children or ſwine, but not ſo fit to feed men withall: It is true that the fruit doth looſen the bellie gently, as it were after the manner of Caſſia. *To feed ſwine.*

The Date-tree. There are manie sorts of the Date-tree: some beare fruit, and some are barren: and of the fruitfull, some beare a reddish fruit, and some a white, and other some a gray. Furthermore, some are males, and some females, some are high and tall, and some are stooping 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 herein they agree, that they all desire a hot ayre, a great deale more than temperate: for in a hot Countrey it bringeth forth verie faire and ripe fruit, and of it selfe is sufficiently kept and preserued, without anie further paine or care, except it be about the watring of it; where, in a temperate Region, it either ripeneth not his fruit, or else beareth none at all. It craueth a sandie, 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 ground where it be planted, be not such, it must be watered with salt water, or salt brine. It is planted of small Plants, with roots in Aprill and May, the Plant being well layd about with fat earth. Some also sow the new stones of Dates (and they bring forth their trees in October) two cubits deepe in the ground, and that mingled with ashes, and well enriched with Goats dung, and the sharpe side of it must be vpward: it must be watered euerie day, and euerie yeare 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 roots with the lees of old red Wine strained.

Note likewise, that (seeing of one Date stone alone there will hardly grow vp any Date-tree, bearing sufficient bignesse in the bole and bodie, to carrie and vndergoe the weight of the head) it will be good to put and ioyne 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 ioyning of two or three together, your tree may come by a bodie 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 manie, if it be possible, because the neere standing of the one vnto the other, causeth that the vertue of the male is conueyed and imparted vnto the female, and that by the commixtion made by the wind, from whence ariseth aboundance of fruit. But and if you haue not the meanes to plant manie male Date trees neere vnto the female, it will be sufficient if you doe but touch the male oftentimes with your hand, and then afterward lay the same hand vpon the female: or you must gather of the flowers 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 head-ach.

The Pine-tree. The Pine-tree groweth chiefely of a kernell, which must be planted in October or Nouember in warme places: or in cold places in Februarie or in March: or about the fall of the apple, or a little after, and that in pits well digged, and which haue lyen vntilled and vnoccupied a good time: the apple must not be broken by force of an yron thing, to get out the kernels, which must lie in steepe three dayes 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 remoue them, because they take not root but in long time, and verie hardly: 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 doe not hurt their roots, especially the principall and thickest ones. The Pine-tree groweth chiefely and thriueth best, vpon high mountaines, and places that are open vnto the wind, 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 forth wheat. It will continue the longer time, if the barke be oft taken from it, because that vnder the barke certaine little wormes do breed, which fret and destroy the wood.

The vertues of Pine-kernells. The distilled water of new Pine-kernells, take away the wrinckles of the face, and diminish the breasts that are too great and swagging, if there be laid vnto them linnen clothes

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 juice is more effectuall for these matters, than the distilled water.

Pine apples are a meat of verie easie nourishment, and for that cause are verie good for such as are troubled with the cough, for them which are in a consumption, and such as are sicke of an hecticke feuer, but they must haue beene steept sometime in Rosewater to take away their acrimonie, sharpnesse, and oylie 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 ach in the sinews and backe, for heat of the vrine, and gnawing of the stomach, taken with the juice of Purslaine. *The vertue of the Pine apple.*

Figges (being one of the best fruits we haue, according to the ground and plant whereof they come) are either more or lesse sweet and sauorie, and this commeth of the ayre as it is tempered with heat, cold, or a milder temper: or else in respect of the moisture and drinesse of the grounds, their fatnesse, and leannesse; their roughnesse or smoothnesse; their strength or gentlenesse, and easinesse; their stoninesse or being without stones, or their scituation amongst some old ruines and rotten stone walls: for in respect of all these, it falleth out that there are great diuersitie of figges, 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, stonie or mixt much with lyme, neere vnto walls or old ruines, yea within the verie walls being clouen, or halfe fallen downe, especially that which beareth little figges, verie sweet and white ones, such as are those of Marseillis, for such a figge-tree delighteth in a drie and grauelly place: as on the contrarie, the figge-tree that bringeth forth great, lesse sweet 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 verie daintie and quickly wronged and injured by frosts, broken downe by winds, and made thin and leane by drought, by the which the fig will sooner be ouerthrowne and spoyled than the Mulberrie. They are easily hurt by Frosts, Mists, and great Cold: wherefore they must be planted in the Spring, when Frosts are past, vpon the South or East quarter, in great, deepe, and well-digged pits, of shootes and boughes of two yeares growth, being faire and round ones, and full of knots; for these are most fruitfull. And to cause them the better to take root, you shall take away their barke at the nether end of the stemme about halfe a foot, and yet leauing it notwithstanding fastened thereunto, that so the said barke may turne into rootes. *The Figge-tree.*

It may in like manner be sowne of figges layd in steepe, and bound about with small lines, and then afterward planted in that manner, and watered often and diligently: but it would sute better, if it were grafted vpon a Plumme tree or Almond tree; for so it continueth a great deale longer. But whether it be planted or grafted, it must not be much watred, for aboundance of water corrupteth the naturall beautie of the figge-tree, and maketh them verie subiect to rot. It would be a great deale better, to make them grow faire, and become fruitfull, to thrust the plant into a wild Garlick, 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 guard 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 roots and to the boughes so well and in euerie place, as that there remaine nothing to be seene of the plant. If you would haue the figge-tree to bring forth a late fruit (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 forth another & second fruit, which will be kept till *Late figges.*

A fruitfull figge-tree.

Winter. Likewise it will be fruitfull and bring forth a full figge and of a good verdure, if from the time that it shall put forth his leaues, there be put to his root red earth beaten and tempered with the setlings of oyle oliues and mans dung: or else when it shall begin to spring, to cut off the tops and ends of the braunches. Figges will be more forward and early, if there be applyed vnto the roots of the trees pigeons dung, and pepper brayed and mixt with oyle: or else if when their grosse and vnripe apples shall begin to grow red, you annoint them with the juice of a great onion, mixt with oyle and pepper, or if when as their fruit shall be reasonably great, you pierce them with a needle, and afterward rubbing them with oyle, you couer them with oliue-tree leaues: for the heat, being nothing hindered through the great moisture of the figge, doth concoct the fruit and ripen it most easily. But if your figge tree grow in a cold soyle or such a soyle as the clime appeareth somewhat vnnaturall therefore, you shall then when he putteth forth his first or later knots, and by reason of his want of Sunne-shine is not able to ripen them, you shall then let them remaine on the tree, and by no meanes pull them away, and the next yeare following, in the height of Sommer, they will all be ripe and pleasant which you shall know by their shining, softnesse, and transparancie, then will they also put forth other new hard knots which yow shall againe suffer to remaine till the next yeare, and thus allowing them two yeres to ripen in, you may haue in England or elsewhere as good and as pleasant figges as are any in Spaine.

Rarely and timely figges.

Figges of diuers colours.

They will be of a diuers colour, that is, white on the one side, and red on the other, if you tie together in a linnen cloth the seed of two diuers figge-trees, and so planting them, afterward to transplant them. You shall reclaime a wild figge tree, if you water him at the roots 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 figge-tree the hornes of Rammes or Weathers. You shall keepe them continually greene, 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 gourd euerie one by it selfe, hanging the gourd 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 figges will remaine sound and safe. You shall preserue drie figges 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 vnpitcht. You shal haue figges that loosen your bodie, and make it soluble, if you put at the root of the figge-tree when you plant it some blacke hellebor stampt with spurge, or some other such purgatiue.

To make a good figge of a wild.

Greene figges.

Soluble figges.

To tame a wild Bull.

To make hard flesh tender.

Furthermore, the figge-tree hath this vertue, that if you haue a wild and vnruly Bull which you cannot tame by any meanes, if you tie him to a figge-tree, by and by he will become gentle, forgetting his naturall sauagenesse. Furthermore, to make the hard and rough flesh of any beast tender by and by, you must hang it to a branch of a figge-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 figge-tree: for the figge-tree breatheth forth a certaine kind of vapour which drieth vehemently, and digesteth the hardnesse of any flesh whatsoeuer, 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 figge, for the horses and asses laden with figges 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 worth the noting how that the juice or milke of the husbanded or tame figge-tree (as we haue before shewed in the treatise of the making of cheeses) serueth for the turning or changing of the milke into curds, as wel as the rennings

Burdens of figs cause horses and asses to faint vnder them.

figges

figges boyled with Hyſope, doe heale an old Cough, and amend the diſeaſes of the Lungs. The fruit doth ſoften the bellie, nouriſheth much, prouoketh ſweat: 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 eat, notwithſtanding that Swine auoid and ſhunne them in all they may.

King *Mithridates* made an Opiate againſt all manner of Poyſon and danger of the Plague, which was compounded of Figges, Walnuts, and Rue, as we haue ſaid before in the Chapter of Rue. *The Plague.*

Figges burnt and made into powder, mingled with a verie little Wax, doe make a verie ſoueraigne medicine for Kibes. The iuice of Figges doth heale all Roughneſſe, ill conditioned Scabbes, ſmall Pocks, Purples, Freckles, Ringwormes, 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 dipped therein, and laid vpon the tooth. It openeth the Hemorrhoids. *For kibed heels*

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 Foreſts: and it is ſo long liued, and of ſuch durableneſſe, as that though the labour due to be beſtowed about it, be left off for a long time, yet it ceaſeth not to beare fruit more or leſſe: and comming to it ſelfe againe, being old, it becommeth young againe, and getting foot liuely, of drie it becommeth marrowiſh and fattie, and of barren, fruitfull. In theſe Northerne Countries it groweth not without great paine and labour, by reaſon of the coldneſſe of the ayre. Wherefore if you be minded to plant the Oliue tree in your Garden, chuſe out a place ſtanding vpon the South or Eaſt quarter, rayſed ſufficient high, and open to the Weſterne wind, and which hath alſo reſted a good while, conſiſting of Potters clay vnderneath, and aboue mingled with Sand and Fullers clay, being alſo a cloſe, moiſt, and not leane ground: and in this you ſhall plant it about mid March, not of ſprouts putting forth at the foot of the Oliue tree, but of ſienes, ſhoots, and branches that are young, faire, and fertile, pulled from the boughes of the tree, as thicke as the wriſt, and a foot and a halfe long, verie round, hauing a ſleeke and gliſtering barke, without boughes, and cut downe in the new of the Moone, rayſing the thicke barke about the length of a fathome, and letting the greene barke alone, which is more fine and thinne. 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 vpward towards Heauen, as when they grew vpon the tree: for if you ſet them the vpper end downeward, they will hardly grow; but and if they grow, yet they will abide barren for euer. You muſt lay the root, 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 foure fingers thickneſſe of fine ſmall mould, and afterward tread all cloſe downe together, round about the new-ſet Plant, and ſo caſt ſtill more earth vnto it, as it ſinketh with treading, or elſe you may beat it downe with a rammer of wood. It muſt not be tranſplanted till after fiue yeares: but in the meane time you muſt digge it euerie moneth, and dung it with Goats dung euerie yeare in Autumne. You muſt water it with raine water, rather than with Fountaine, Riuer, or Well water. And ſometimes you muſt prune and cut away the ſuperfluous branches, eſpecially the drie and withered ſhoots, and the branches putting forth 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 growne eight yeares, and then at ſuch time as the Moone is decreaſing, and the ſeaſon drie and faire. And ſometimes, euerie eight yeare, you muſt moiſten the root 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 noyſome vnto this Plant. You muſt alſo defend them from *The Oliue tree.*

Cat-

Cattell, especially from the browsing of Goats, which would make them altogether barren. You must not plant anie other Plants neere vnto the Oliue tree, except the Figge-tree, or the Vine, whose companie and neighbourhood it reioyceth greatly in, and hateth especially the Oake, yea, euen to be planted in the place where the Oake was standing, and is pulled vp, for there it dieth presently. The Oliue tree may be grafted in the bud with that kind 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 shew hereafter: but it were but a lost labour to sow it of his stones and kernels.

A marueilous thing about the Oliue tree.

The Oliue tree is lesse subiect vnto vermine than anie other, because of his strong sauour, insomuch, that it is as good as a shield vnto all other hearbes that are about it: as also by his bitternesse it killeth Coleworts, Lettuces, and other moist hearbes which are sowne in the same ground with it. Some hold (which is a marueious thing) that the Oliue tree groweth more fruitfull and aboundant in encrease, 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 youths as are certainely knowne to be chast, as also the ordering and gouerning of them, and that there they grow faire, and bring forth much fruit.

Virginitie. Chastitie.

The gathering of Oliues.

You must 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 Nouember, when they begin to change their colour, and are verie blacke: this time must be faire, and not rainie: yea, and if it haue rained some time before your gathering, you must see that it be dried vp againe verie throughly. Some gather their Oliues after another fashion: They beat 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 downe some of the branches, together with the fruit: but such manner of gathering Oliues is not good, because the Oliues beaten downe, or strucken, doe wither incontinently, and doe not yeeld so much oyle: put also vnto this discommoditie, that other; which is, that the tree is bruised, and manie of his branches broken, which is a great hinderance in the yeares following.

Oliues serue to make Oyle of, and to serue at Table.

Furthermore, Oliues are gathered for two ends, either to make Oyles, or to serue as dishes at Banquets, to the end that they may prouoke appetite: notwithstanding, wee must not thinke that all sorts of Oliues indifferently doe serue for these two vses; for the greatest, for the most part, are better for Banquets, and the lesse to draw Oyle out of. But those which are intended to be reserued for Banquets, must be carefully preserued with salt Brine, or salt Vineger, or Oyle, or the grounds of Oyle, or with Cute, or the drosse of Grapes, or Honey, or Veriuice, in manner as followeth.

The gathering of Oliues to serue in Banquets.

They must be gathered with the hand, hauing got vp into the tree with a ladder, in faire weather, when they begin to be black, and are not as yet throughly ripe: then afterward to spread them vpon a hurdle of Oziers, and there picke and cull them out at your pleasure, putting aside all such as are spotted, corrupted, or verie small, and reseruing onely 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 foure places, or without anie such cleauing, be put whole into an earthen pot, and salt Brine or Veriuice powred vpon them, or else Honey with Vineger and Salt, or Oyle, 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 ribbes of Penyryall, Mints, Annise, Mastickc tree, Oyle tree, Smallage, Rue, Parsley, Fennell, and Bay tree leaues, and the seeds of Fennell, Annise, and Rue. Finally, you must keepe the vessell well stopped, and put it in some Cellar to keepe: but he that would keepe Oliues a long time, must change his salt Brine euerie quarter of a yeare.

As concerning Oliues to make Oyle of, they must be gathered when they are somewhat more ripe than those which are to be preserued, and when as there are manie of them become alreadie blacke, but yet not so manie as are white: in other respects they must be gathered in such manner as wee haue said that the others should be gathered, that is to say, with the hand, and when it is faire weather, except it be those Oliues which by tempests and winds haue beene blowne to the earth, and such as must needs be gathered, as well because of wild, as tame and house beasts. There must no moe be gathered at one time, than may be made into Oyle that night and the day following: for all the fruit that is gathered in a day, must presently be put vpon the Milles, and so into the Presses. But before that they be put into the Presse, they must first be spread vpon hurdles, and picked and culled: as likewise, that their lees and waterish liquor may runne out a little, and spend it selfe; for it is a great enemie vnto the Oyle: insomuch, as that if it remaine, abide, and stand with the Oyle, it spoyleth the tast and sauour of it. And therefore in this respect, when sometimes the quantitie of Oliues is so great, as that there want Presses and workmen to dispatch them, you must haue a high and well-rayſed floore, where you must prouide partitions to keepe asunder euerie daies gatherings: and these partitions, in the bottome, must be paued with Stone, or with Tyles, or Squares made somewhat sloping, that so the moistnesse of the Oliues may conuey it selfe along the channels which shall be there prouided. And thus much concerning the preparing of Oliues to make Oyle of: it remaineth now to speake of the making of Oyle; but wee will reserue that for the end of the third Booke, where we will make a large discourse of the making of Oyles. *The gathering of Oliues to make Oyle of.*

Finally, there is a verie astringent and binding facultie in the Oliue tree: for the decoction of the leaues in a Clyster doth stay the flux 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, doe sture vp and prouoke an appetite, being eaten, and cause a good stomacke, but they make the bodie costiue, and are hard of digestion. Ripe Oliues doe ouerturne the stomacke, and make boylings therein: they cause also headach, and hurt the eyes. As concerning the vertues of Oyle, wee will speake of them in his place. See more of the Oliue-tree in the third Booke. *Flux of the bellie. Flux of bloud. Itch. Ringwormes. Scabs.*

Pistates require as great toyle and diligence about them as the Oliue-tree, and would be sowne about the first day of Aprill, as well the male as the female, both ioyntly together, or at the least one verie neere vnto the other, the male hauing the backe turned to the West: for being thus ioyned, or neere neighbours one vnto the other, they beare better and greater store of fruit, especially if they be sowne in a fat ground, and well ayred: and there you may graft them at the same time vpon themselues, or vpon the Turpentine tree, notwithstanding that some doe 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 chuse new shoots of the tree which are in verie good liking, and these bound together, put into the Pits the second day of the moneth of Aprill, afterward bind them together from the earth vp to the boughes, and couer the roots with good dung, watering them continually for the space of eight daies. And after the bodie of the Tree is three yeares old, you must lay open the Pit neere vnto the roots, and set the bodie somewhat deeper in, and then couer it againe with good dung, to the end, that when the Tree shall be growne great, it may not be ouer-blowne with great winds. *Pistates.*

This Tree was rare and hard to be come by in this Countrey, before the most reuerend Lords, Cardinall *du Bellay*, and *Reue du Bellay*, Bishop of Mants, brethren, and men worthie of eternall memorie for their incomparable knowledge, alone, and before all other Frenchmen, had brought into this Countrey the knowledge, not onely of names which were altogether vnknowne vnto vs, but also the ordering and figures of

of ſtrange Hearbes and Trees, the fruits whereof we are greatly in loue withall, and doe highly commend; notwithſtanding, that as yet we doe ſcarce know themſelues. But ſurely herein this whole Nation is bound to acknowledge an euerlaſting dutie vnto them for the ſame.

The fruit of Piſtates (as *Auicenne* ſaith verie well, not ſticking at the ſcruple and doubt which *Galen* caſteth in the way) doe comfort the ſtomack, and nouriſh much: and this is the cauſe why they are preſcribed them which are leane and worne away with ſicknesſe, and which deſire to be ſtrong and mightie in performing the act 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 profit or pleaſure of them. And for as much as they are beſt dealt withall, and found to proſper moſt, when they are gotten alreadie growne great from ſome other place (it being ſo difficult a thing, and exceeding toyle, to make them breake the earth, and grow vpon the ſeeds in this Countrey) I will make a briefe diſcourſe concerning whatſoeuer is requiſite for the preſeruing, planting, remouing, and gouerning of them in our Countrey and Grounds. And therefore to ſpeake (in the firſt place) of the manner of tranſporting of them, wee muſt thinke, that theſe Trees get no good by changing their place, but that they would doe a great deale better in their naturall and natiue ſoyle and ground, where they were firſt planted, ſowne, or grafted, than to be remoued elſe whither. Notwithſtanding, if it pleaſe the Lord of the Farme to procure them from farre, hee muſt doe 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 ſappe ceaſeth to comfort it with his warme moiſture, by reaſon of his approaching 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 forth leaues, yea and flowers, if the Plants be great and ſtrong ynough.

The manner of tranſporting Citron-trees, &c.

Taken out of the remembrances of Monſieur Nicot, ſent from Portugall vnto Q. mother, and to the Cardinall of Lorraine.

The way to tranſport them, is in ſuch ſort to fit the rootes with clothes or ſtraw, as that you may bind therein vnto them ſo much of the earth, from which they were taken, as may defend them from being hurt either by the Wind or Sunne: and hauing thus done, to fit them further with Barrels, or Sere-clothes, the better to keepe them from all the iniuries of the ayre, as alſo from the raine, and to cauſe them to be conueyed 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 knowne by the change of the leaues and barke) and then to prouide for that accordingly: for in ſuch caſe you muſt take away 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 hereafter.

Ground fit for theſe Trees.

You ſhall in the day time view well your ground, and ſee that it be a good ſubſtantiall blacke, open, tender, ſweet, light, fat, and cleane earth, without anie 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 end it may drinke in the water in aboundance where you meane to ſet theſe Trees. For theſe Trees craueing much watering, if the water ſhould ſtand aboue the earth, and not ſinke downe, the roots would become ſicke, diſcoloured, and by little and little would looke the deadly colour of pale, blacke, or blew. If the earth be not eaſie to be ſtirred, you muſt couer it with Horſe dung verie well rotted, or elſe with Oxe or Sheepes dung, and by this meanes it will become eaſie to be pierced or ſtirred. The place where they are to be planted, muſt be open vpon the Sunne, a high place, and ſheltred from all the quarters from whence froſtie winds doe blow, but principally the Northerne wind, which is alwaies moſt contrarie vnto thoſe Plants. It muſt be alſo open vpon the South (becauſe contrarie to the nature of all Trees they feed vpon this wind,

and

and ſtarue through that of the North) and a little vpon the Weſt, in ſuch ſort, as that they may be guarded on the back part, 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 Northerne parts: and for the more certainetie, to make them a hood and flankers of Bay trees, for the encreaſe both of the beautifulneſſe, as alſo of the profit of the ſame: for ſome hold, that the companie of the Bay tree doth keepe the Orange tree from froſt. Theſe Bay 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 Cypreſſe trees. And here you muſt learne, that Orange-trees loue not the companie of anie other tree but of the fore-named, and of the Myrtle-tree. The beſt of all, and moſt aſſured for profit, 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 Lords) or elſe in Caſes, that are wide below, and narrow aboue, builded of clouen boords, verie well ioyned and fitted together, in ſuch ſort, as that no ſhoots may grow through them: for the earth, by reaſon of the oft watering of it, doth not ceaſe continually to cauſe them to put forth and breake out one way or other. But that ſuch watering may be conueyed in beſt ſort for their growth, it muſt be prouided and brought by ſome low conduit and paſſage, and the ſurpluſage carried away by ſome ſuch cocke as is vſed in Lee tubs: and ſuch, or the like Veſſels, muſt be made to carrie into anie place whatſoeuer a man will: for ſeeing that theſe Plants doe die, if they be touched neuer ſo little with froſt, as being moſt tender and daintie of their naturall inclination, it muſt be looked vnto in Winter, after that they are well couered and compaſſed about with ſtraw, or the ſtalkes of Gourds (for by a naturall contrarietie they are giuen to let and hinder the froſt from hurting them) that they be conueyed vpon ſmall Wheelebarrowes into vaulted Caues, and when Summer 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 wee haue ſpoken of) there ſhall Pits be caſt with diſtances betwixt: and whereas the Orange-tree doth ſhoot out his roots deepe into the earth, you muſt caſt the ſaid 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 foot of the tree. Theſe Pits, to doe well, ſhould be kept open a yeare, or thereabout, if it were poſſible, for the well ſeaſoning of them, which by manie Sunne-ſhines, and manie 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 rainie, or by filling vp the ſaid 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 tenne daies after this preparing of it, the ſaid Pits will be well ſeaſoned. About the end of the ſame time, you muſt againe breake and ſoften the earth of the ſeat of the ſaid Trees, and the ſides thereof, and lay into them a finger thickneſſe of dung, and againe, vpon this dung, the like thickneſſe of good mould, and then vpon it to ſet the Tree, in the verie 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 ſtand 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 and ſtand vpon the Eaſt or Weſt. And this obſeruation is of great moment: for as much as they which faile in this, doe oftentimes ſee their Trees dead, or elſe (notwithſtanding whatſoeuer other meanes vſed) bringing foorth verie late and vntimely fruit, with like vntimely growth and bloſſoming, which they would not haue fallen into, if they had beene ſet

Holes, or Pits.

againe after the manner they ſtood, before they put forth anie budde or branch out of the earth. And this diſaduantage likewiſe happeneth vnto them, which hauing planted their Trees in Pots or Caſes, vſe to carrie them into houſes and vnder roofes in the Winter time, and out againe at the Spring, vvithout anie regard to ſet them after the ſame ſituation and ſtate of ſtanding wherein they ſtood the yeares 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 thickneſſe of halfe a foot, and trample it downe: and againe, vpon this, to make a bed of the ſame thickneſſe 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 encreaſe of the day, that is to ſay, 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 would grow Wormes and Ants betwixt the bodie and barke of the Orange tree. Being thus planted, you ſhall order and gouerne them both in Summer and Winter in manner as followeth: In Summer they ſhall be watered euerie three daies, morning and euening, and ofter too, if the greatneſſe of the heat doe require it: For the Orange tree, aboue all things, doth require water, and ſtandeth in need of two buckets of water at the leaſt vnto euerie foot or tree root; and therefore the Gardiners are happie in this caſe, which in their Gardens, or not farre off, haue water at commandement, becauſe commonly they reape both more fruit, and that alſo more beautifull and faire, and 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 pretie 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, digged ſome three fingers deepe round about, and into this you ſhall poure your water, and when it is ſunke, you ſhall fill vp the furrow againe. In Winter the care and labour is the greater, in keeping them from being tainted of the Froſt: and therefore, ſo ſoone as the Froſt ſhall begin, you ſhall couer them in good time, about the firſt of October, with good ſtore of boughes, held vp with props, or elſe to make for euerie one of them a lodging of Mats, with a doore in it open vnto the South. Some vſe to couer them with Corke, and it is a verie good couering for them. Some, as hath beene ſaid before, remoue them into vaults vnder the earth, carried thither vpon little Wheele-barrowes, and fitted of Barrels or Caſes. But which of theſe courſes ſoeuer it ſhall be that you ſhall take, you muſt alwaies ſee, that their tops and outſides be at libertie, and not pinched of due roome by that which couereth them, and that this coueret be not taken away till Winter be paſt. It is true, that before you couer them, or ſet them in vaulted caues, you muſt ſee, that they be not wet anie manner of way: for if the cold ſhould ſeize vpon them in that pickle, both the tree and the fruit would be eaſily ſpoyled by the froſt: beſides that, this wetneſſe would cauſe the flowers and fruits to corrupt and rot when they were vnder their couert: but good and wiſe Gardiners, before they couer theſe fruits, doe take from the Citron trees (being the leaſt able to endure cold of all the reſt) all the flowers, buds, and tender boughes of the ſame. You muſt beware that it raine not into their lodging or place of couert, eſpecially vpon the thaw of Snow, becauſe Snow water is more hurtfull vnto them than anie other. Likewiſe, if anie drift of Snow or Sleet come thwart their lodging, or that anie trade wind doe bring it vnto them, you muſt ſhake it off from their branches, and take it from the foot of them, for it would ſcorch them. And therefore, to meet with theſe inconueniences, if there be anie cleft or hole in the couering, you muſt make it vp cloſe, and ſtop it well with dung, or wiſpes, ſo as they may be taken out when it is a faire and cleere weather, and that the Sunne ſhall caſt forth his beames, that ſo it may ſhine vpon the Plants, and diſpell the ill, corrupt, and infected ayre, and take away and drie vp the infecting

moiſture

moiſture riſing of the continued ſhadow: and then againe, when the Sunne goeth downe, and falleth off, you muſt ſtop them vp againe, that ſo the cold may not take hold vpon them. It will not likewiſe be amiſſe to make a fire there, during the extreame cold times, of good drie Wood, or Coale, becauſe the heat thereof would be great, and continue well, without working anie annoyance vnto the plants, either by his flame or ſmoake: and this to be moſt chiefely performed in the behalfe of the Citron-trees, which are moſt ſubiect vnto the cold of all other, the cauſe being, for that they haue in them greateſt ſtore of iuice and ſubſtance; as on the contrarie, they are leaſt ſubiect to cold which haue leaſt iuice and ſubſtance in them. Againe, you may not be too haſtie in vncouering of them, vpon ſome ſhew and promiſe of gentle, meeke, and faire weather, becauſe the cold oftentimes faining it ſelfe to be gone, returneth againe in more vehement manner than before, threatning the killing of them, onely it will be the beſt and ſafeſt to open ſome boord or window of their lodging, that ſo the trees may enioy the preſent heat of the Sunne for certaine houres. In the time of the couering of theſe new tranſlated trees, you muſt not forget to renew them at the foot a cubit height with good earth, enriched with good rotten dung, and that to lye round about the ſaid foot the breadth of a good fadome: and this will ſerue and ſtand in ſtead, in caſe that by extremitie of cold the bodie of the tree ſhould be frozen, to refreſh and repaire it againe from below, where the froſt ſhall not haue pierced it; notwithſtanding, if in ſuch extraordinarie cold ſeaſons you couer and lay ouer their former couering with other dung well rotted, you ſhall preſerue the ſaid Orange trees. Their grafts (whereof wee are to ſpeake hereafter) are a great deale more tender and more eaſie to be broken by the cold and froſt, and therefore they muſt be couered at the foot, and layd high with earth, and as it were cloaked or hooded, and double couered and cloathed, as hath beene ſaid, and that a great deale higher, that ſo it may not be pinched in the place of the ſetting in of the graft. But and if the cleft, or other receit made for the ſetting in of the graft, be ſo high, that the ſaid prouiſion and defence cannot conueniently be applyed vnto it, you muſt then couer ſuch chaſe with thicke new cloth, being well woolled, or elſe with ſtraw, and to tye the one or the other faſt to, by wreathing it about with one of the breadths of a Mat, and ſtay it vp with a prop, if need be. In hot Countries, as Spaine and Portugall, it is held as an approoued opinion, That by how much the more Orange trees are watered in Winter, ſo much the leſſe ſubiect are they to froſt; becauſe their water is either out of the Well, or freſh drawne from ſome Fountaine, or of water broken out of the earth, and made warme with the Sunne, or with the fire, and for that it is drunke vp all into the earth: but I feare me, that it would not fall out for well done, if ſo be that in this cold Countrey one ſhould take that courſe: notwithſtanding, if you will vſe the ſame order, you ſhall doe it either by the helpe of the foreſaid Sunne beames, or by a pipe of Lead, laid good and deepe in the earth, a farre off from the root of the tree, powring of the ſaid water into it, that ſo it may deſcend and reach vnto the roots: but ſo ſoone as you haue thus powred in your water, you muſt ſtop verie well and couer the ſaid pipe with earth and dung, that ſo the cold ayre may not runne along it vnto the roots, for ſo they would be frozen. They muſt be vnder-digged and caſt at the foot from moneth to moneth, if the ſeaſon will ſuffer it, and the earth made light and ſoft, mingling it with dung, and watering it as hath beene ſaid. And for the better preſeruing of the branches of theſe plants, and keeping of them in their ſtrength and force, they muſt be cut euerie yeare, more or leſſe, according as the good and expert Gardiner ſhall iudge it neceſſarie, in as much as theſe trees, being both daintie and precious, 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 foot, or elſewhere; and likewiſe thornes or pricks, and that with the hands, or ſome other cutting yron: And if anie 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 forth 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 forth branches againe. You must also bow the boughs as shall be necessarie, and to raise some higher, and pull some lower, as occasion shall require: cut the ends and sprouts which put forth at the toppes of the tree: take away those that grow too high, to the end they may be proportionable in an equall measure of growth: for these trees, especially the Citron tree, growing in anie great height, and hauing anie great store of boughes, doe neither bring forth so much nor so good fruits, as when they are otherwise fitted and freed from their vnnecessarie boughes: and further, if need require, to set some store of poles to hold vp the boughs. If notwithstanding all the paine and preseruation spoken of before, they fall now and then into mislikings 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 Countries: but as for those which wee procure to grow and spring out of the earth here in this Countrey, wee must know, that they grow either of shoots, boughes, grafts, or seedes. 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 root. It is true, that some vse to prepare a Plant of it in such manner: They picke and prune from an Orange tree bough his sprigges and siences, plant it the small end downeward, wrapt in a Linnen cloth, hauing within it Calues dung that is verie new: and of such plants haue beene seene to grow Orange trees, growing indeed lower than the other, but hauing a well spread and large head. But yet it is better to sow it, so that it be in a good soyle, notwithstanding it be long before it bring forth fruit: but he 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 said ground, of the breadth of halfe a foot, to put three seeds together, and the sharpe end vpward, and the higher part of the seed toward the earth: after this, they must be oft watered with warme water, or with Sheepes milke, for so they will grow better and sooner. And yet forget not, before you sow them, to lay them in steepe in Cowes milke that is warme: and if you desire to haue them sweet fruit, put to the liquor wherein you steepe them, some Sugar candie.

To sow Orange trees.

You shall plant their shoots after the same manner, in a well husbanded and digd ground, as also their boughes and grafts, about mid May, setting the great ends vpward, and filling the pits with ashes made of Cucumbers. These bring forth fruit, and the middle part of the apple will be sweet, if the bodie of the tree be pierced with a Piercer in the moneth of Februarie, and that there be made therein an oblique and sloping hole, which must not goe through, and from out of this the sappe 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 foot, which you shall fill with honey, and stop vp with mortar, for feare of raine and of the heat of the Sunne: when as the tree hath drunke in all the honey, you shall put in more, and water the root with vrine: in the end, you shall cut off all the little shoots which shall put forth of the tree, letting those alone which shall grow vpon the slit branch.

To graft Orange grafts.

At the same time Orange trees may be grafted chiefely vpon the Pome-Adam-tree, for vpon this they thriue maruellously (especially the Orange tree) both in goodnesse, greatnesse, beautie, and thicknesse of such fruits as they bring forth, in respect and comparison of those which they bring forth when they are grafted one vpon another: that is to say, 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

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 trunke or bodie of the tree, cut off neere vnto the root. 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 fruit 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 bodie, and are not ſo ſubiect vnto the cold, becauſe they enioy and participate ſo largely of the Orange tree his properties and qualities: which conſiſting of a hard wood, without ſappe, doth reſiſt the 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 withall, take away all the ſhoots which grow thereupon afterward. When they are planted, you ſhall not ſuffer anie weeds to grow there about them, except it be the Gourd, whereof 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 ſowne and caſt about the roots of Citrons, doe make them more faire and fruitfull: And ſeeing that the Citron tree is verie fruitfull, and beareth a heauie fruit, after ſuch time as it hath brought forth his fruit, you muſt gather the greater part, and leaue but a few remaining, and ſo the remainder will proue verie faire ones, and a great deale the better.

Gourds a friend vnto the Citron.

The Orange tree will neuer freeſe nor die with a cold wind, nor yet with the froſt, if it be grafted vpon Holly, being an approued thing: but then indeed the fruit will not be ſo naturall as that of the others.

Citrons, Oranges, Limons, and Syrian Citrons, muſt be gathered in the night, with their leaues, in the change of the Moone, 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 keepe them freſh and vncorrupt all the yeare, if you hide them in heapes of Barly, or Millet: or elſe if you annoint them ouer with plaiſter well tempered: or if you cloſe them vp in veſſels euerie one by it ſelfe. You muſt not in anie caſe lay Citrons neere vnto hot bread, for it would make them rot.

To keepe Citrons &c. long.

To haue Oranges of a mixt nature, and as it were halfe Oranges, halfe Citrons, you muſt about the beginning of March cut a fience or branch of the Citron tree, whiles it is yet young, of the thickneſſe of three fingers, and plant the ſame in a conuenient time, giuing it all his orders and beſt helpes of husbanding: at the end of two yeares, 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 young Orange tree thereupon, as of ſome two yeares old, proportionable and ſutable vnto the Citron tree in thickneſſe: afterward you ſhall rub and annoint the ſaid cut, and chaſe or cleft for the receit of the graft, with the root of the hearbe called Aron, and you ſhall couer it well with a good cappe, after the manner of other grafts, putting therewithall vnto the foot thereof well rotted dung, or the aſhes of Gourds: after that, you ſhall lay it 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 towards the Eaſt, and it muſt be done in the encreaſe of the Moone and day, for ſo it will proſper more effectually.

Oranges of a mixt nature.

The Citron will be red and ſweet, if it be grafted vpon a Mulberrie tree, and will grow in ſuch forme & after ſuch manner as a man will haue it, if before it be growne to his bigneſſe, any way it be cloſed vp in a frame or mould, cut after the ſhape you would haue

Citrons.

Citrons of what faſhion you wil.

haue it of, that ſo it may grow forth his iuſt quantitie therein. By the ſame meanes, if it be put into a veſſell of earth, or glaſſe, before it be fully growne, it will beare the faſhion of the veſſell, and become as great as the veſſell: but, in the meane time, to let it haue ayre, you muſt make ſome ſmall holes in the veſſell.

The difference betwixt Orange, Citron, and Limon trees.

The fruits of theſe Trees are alike differing, both in colour, diſpoſition, taſt, and vſe: for Oranges haue a more yellow and golden rind, a ſowre or ſweet taſt, or both ſowre and ſweet together, being round as an Apple, and fitter for the Kitchin than for Medicine. The Limon hath a longer ſhape, a paler rind, a ſowre taſt, 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 rind thicke, yellow without, ſowre, good for cordiall and preſeruatiue medicines. Syrian Citrons are twice ſo great as Limons, being faſhioned like Cucumbers, and the rind an ynch thicke.

The leaues of the Citron tree. The iuice, ſeed, and rind of Citron trees.

The leaues of the Citron tree doe cauſe a good ſmell amongſt clothes, and keepe them from the fretting of Moathes. The rind, iuice, and ſeed of Citrons, are all of them verie ſoueraigne 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 rind and iuice of Citrons doe procure a ſweet breath: the rind preſerued heateth the ſtomacke, and helpeth digeſtion. The iuice preſſed from the rind of an Orange, is quickly ſet on fire: it pierceth alſo, by his great ſubtleneſſe, through the glaſſe, euen into the Wine that is contained therein. The iuice of Limons killeth Scabs, Itch, and Freckles, and taketh away the ſpots of Inke out of Cloth. The ſame diſtilled through a Limbeck, maketh womens countenances ſmooth and beautifull, and taketh away all filthineſſe 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 forth, doth cleanſe the faces of young girles, and taketh away red pimples in the ſame, as alſo other manner of ſpots like vnto them. Likewiſe, the iuice of Limons diſtilled in a Limbeck, beſides that it helpeth and poliſheth the countenances of women, is furthermore good to take away, out of the face, and other parts of the bodie, all white Spots, Warts, and other ſuch like things. The iuice of a Limon is of ſuch vertue, that if you ſtraine it twice or thrice, 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 will become ſo ſoft as honey, ſo that you may make anie ſhape with them that you will. Furthermore, the iuice of Limons is ſo corraſiue, as that if you ſteepe in it a piece of Gold ſome certaine houres, you ſhall find it diminiſhed, and become light: and as much will fall out, if you ſticke a piece of Gold in a Limon. See more of this matter in the third Booke.

A ſweet breath.

Itch.

Redneſſe of the face.

Warts.

To ſoften pearls.

To diminiſh Gold.

The water of Naſe.

The flowers of Oranges are preſerued with Honey or Sugar, and thoſe are verie cordiall: therewith likewiſe is made a very precious water, of rare and ſingular ſweetneſſe, which is called the water of Nafe.

Pomegranate trees craue a hot or temperate ayre, for they cannot beare fruit in a cold Countrey: and albeit their fruit be of one of theſe three taſts, as ſweet, ſowre, or both ſweet and ſowre, notwithſtanding, all manner of Pomegranates doe craue one and the ſame ayre, ground, and manner of ordering. They maintaine themſelues in good ſtate in all manner of ground, whether it be far, or ſtrong, or grauellie, or clayie, or ſandie, foreſeene that the ſand be ſomewhat groſſe and moiſt. They refuſe not the ſituation of anie ground, be it hill, valley, or plaine: yea, they refuſe not to grow well in ſtonie, drie, 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 doe well beare either to be planted or grafted. Further, if you will take the paines to picke and prune them whiles they are young, and in due time, the fruit 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

South Sunne, but neuer vpon the East, nor yet vpon the West, for this quarter doth most hurt them, as well as the Vine. Note notwithstanding, that the young branches which you shall cut off from them must be taken when the tree hath put forth his buds, and not before (which is contrarie 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 ends of them, and annoint them with Swines dung, which is more familiar vnto them than anie 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 especially some Mulberrie tree. The time to plant them, is from after March vntill May: betwixt the same times it is good to graft them vpon themselues, but to better successe vpon the Myrtle tree, wherein they delight greatly. The Citron tree, the Willow, and the Mulberrie tree are not so good, howsoeuer that sometimes they may be grafted vpon them.

The manner of grafting them, is to put into the bodie of the tree the graft of the Pomegranate tree, so soone as euer it shall be cut off from it, and after to poure vpon it some oyle, 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 Pomegranats.*

Pomegranate trees, by mightie raines, excessiue dewes, and great fogges, doe easily loose their flowers and fruits 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 noysome vnto them. They endure clefts and chaps in their bodies, without anie danger: and therein they are like vnto the Figge-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 bath and wash the top of the tree, or to spread vpon the roots Asses dung, and after to couer them and water them with mans vrine. *Pomegranate trees loosing their flowers.* *Sweet 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 yeares. The barren Pomegranate tree will become fruitfull, if the bodie 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 foot 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 sappe of the boughes of the tree, and lay 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 forth 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 kernels.*

Pomegranates will not breake nor open vpon the tree, if there be three stones put at the root of the tree when it is planted: but and if the tree be alreadie planted, then neere vnto the tree roots you must plant the Sea Onion. But indeed, all these helpes, and such other, doe but little preuaile: and therefore it were better to plant or graft them onely which will not bring forth a fruit that will breake when it commeth to ripenesse. The Pomegranate tree will not fall his flowers, if the roots be watred euerie yeare thrice with old vrine mixt with as much water. *Open Pomegranats.* *Pomegranats flowers.*

Pomegranates will keepe and continue, if you dip them in faire warme water, and take them out again by and by: or else if you put them apart in drie sand, or in a heape of corne in the shadow, so long as till they become wrinkled: but yet better, if when they *The way to keepe Pomegranats.*

they be ripe, and yet hanging vpon the tree, you wrythe 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 drie 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 verie well. But whatsoeuer way you take, the principall end must be to keepe Oranges in a cold and drie 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 old of the Moone, so that they be then ripe and verie 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 verie well stopt, and well pitcht or seared, that the ayre may not get in. Some doe couer them and worke them ouer verie thicke with Potters earth, verie well beaten and tempered, and when it is drie, 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 euerie one of them alone by it selfe in hay or in straw within cases. The boughs of Pomegranate trees doe driue away venimous beasts: and this was the cause why men in auncient time were wont to put the boughs 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, than for his fruit: it groweth of shoots and sciences drawne and taken from the tree, and planted in a verie moist ground, and such as is neere vnto some Fountaine or Riuer: and yet besides this, it delighteth to be watred oftentimes with neat Wine, and sometimes with mens Vrine, to helpe it to shoot vp and grow high, and to put forth large and ample branches, and long leaues, for to make the better shade. In this Countrey we cannot see manie faire ones. I remember, that I haue seene one at Basil in Saine *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 time of great and scorching heat. Some make dishes of Plane tree wood, to assuage paine and wringings in the bellie, being applyed thereunto. You must beware of the dust which hangeth vpon the leaues: for being taken into the bodie, 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 Lote or Nettle tree. The Nettle tree is well ynough knowne in Languedoc and Prouence, especially in a borough neere vnto Mompelier, called Bontonnet: it groweth in a fat ground, well manured and toyled, open to the South or East Sunne. The wood is good to make Flutes, Cornets, and other Instruments of Musicke: it is good also to make handles for Kniues and Swords. The fruit is verie much desired at the Tables of great States, for his great sweetnesse, and most pleasant and delightsome smell which they find 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 verie sweet, and seemeth like vnto other new pressed sweet Wines, but it lasteth not aboue tenne or twelue daies.

The Masticke tree. The Masticke tree delighteth in moist places, and is planted after the first day of Februarie: it beareth fruit thrice a yeare. 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 Tooth-pickes thereof.

The Turpentine tree. The Turpentine tree delighteth in a low and moist ground, and withall, in a hot and warme ayre, open vpon the Sunne. The leaues, barke, and wood, haue the like vertue that the Masticke tree.

The Iuiube tree. The Iuiube tree, and others, as well forraine as growing in our owne Countries, are further to be seene and read of in the third Booke.

CHAP.

Chap. LV.

Of the two particular Gardens ſcituate 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 acres, for the profit of the Lord of the farme, as for Madder, Woad, Taſel, Line, 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, doe well deſerue to haue euerie one his ſeueral field by it ſelfe, and to be tilled and husbanded after the manner of corne and pulſe. *Madder.*

For Madder therefore, it is meet that there ſhould be appointed out foure or fiue acres of ground in a place by it ſelfe, which muſt not lye farre from the water, but in a free and not in a ſtrong mould, and yet not too light: which hath had his three or foure arders with the plough, or (as indeed is beſt) digged and ſifted: notwithſtanding that the ſifting of it be a longer peece 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 wont to be in the caſting or digging of a new vineyard. For this plant hath his proper and particular ſeaſons to be dreſſed and planted in, as well as the vine: but in this they differ verie manifeſtly, that the one is an hearbe, and the other a ſhrubbe, and as it were a knot of many trees: the one dieth yearely (and there is nothing of it in requeſt but the roots for to make good colours of) but the other laſteth and continueth at the leaſt twelue yeares in good liking and liuelihood: of which, the firſt ſixe is for growth, and a little for bringing forth of fruit, and the later ſixe, for whole, ample, and intire profit, the daunger of haile, waſhing away of the grapes, when the vines be in flowre by much raine and froſt, being excepted; vnto which in like maner Madder is ſubject, 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 ſowne againe, as alſo Woad, the ſpeciall husbandrie of ſuch as dwell in Prouence, and the wealth and commoditie of Dyers of Cloth or Wooll, with what colour ſoeuer it be. It may be ſowne or planted; but indeed being ſowne it yeeldeth ſcarce at any time any great ſtore of increaſe: but if you will ſow it, then beſtow the like quantitie of the ſeed thereof vpon an acre, as you are wont to doe of Hempe, and that in the moneth of March, vpon the tops of hills well battilled and manured: thus the ſeed being caſt into the ground, and the ſame well incorporated with harrows or rakes, there is no need of any other labour but keeping of it cleane from hurtfull weeds, 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 choyce of the roots 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 and taſt of them, they muſt be more yellow, thicke, and ſtringed, comming neere vnto the colour of the true Prouence Orange-tree, verie bitter in taſt, and in ſeething (for the triall of it) more red and full of juice, 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 profit to be expected from it, it is not to be attained or come by, till after the two firſt yeares 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 Italie they vſe not to take vp the roots of Madder, till after they haue continued ten yeares in the ground, either ſet or ſowne: but they cut the boughes of it euerie yeare to haue the ſeed, and after they couer the roots one after another, laying two fingers depth of earth vpon euerie one, the meaſure being taken from his

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chiefe and principall, to the end the frost may not hurt them, and that so the roots may grow the thicker: after the eight or tenth yeare, they pull vp the roots, drying them in the Sunne, and afterward when they would grind or presse them, they doe further drie them in a great Ouen made for the purpose, and so presse them vnder a Mill-stone, 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 root, so much the more Madder haue they euerie yeare, and that fine, which is more than if they should take vp the roots euerie yeare. 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 yeares following with wheat, because it will beare verie faire and great store thereof: in as much as the field wherein Madder hath beene sowne, is made much fairer and better thereby, as whereof it may be said this ground hath rested it selfe, seeing the root hath done nothing but brought forth boughs, for seed, and that the leaues falling from them, doe as much feed the ground as the ground doth the roots and boughes.

But Autumne being come, and when you see that the hearbe beginneth to looke yellow, and to loose his naturall colour, you shall draw 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 drie, for the space of three or foure daies, if the weather be such as it should, or else sixe or eight daies in a rainie and moist weather: then you shal cause them to be taken vp, dusted, and scraped, that so they 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 owne vse or for the sale.

To colour the Vrine.

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 nosthrills, as that it inuenimeth and killeth many in a few yeares. The decoction procureth vrine, and the termes of women, and coloureth egges red that shall be boyled with it. The leaues because they are rough and stiffe are good to scowre brasse vessell.

To procure the termes.

Chap. LVI.

Of Woad.

AS concerning Woad, it is tilled in a field, 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 and stalkes: it doth not feare frost, raine, or extraordinarie cold: Indeed it doth not craue any long rested fat ground, but a strong ground, and such as may be said to be in good plight, rather than an indifferent and light: it groweth better also in grounds, which haue layed fallow three or foure yeares before, or which haue beene Medow-ground two yeares before, than in grounds which haue beene 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 soyle, and set from one yeare to one: for otherwise the roots when they are set, doe degenerate oftentimes and miscarie, loosing their force and goodnesse. And whereas Madder doth fat the ground, Woad doth make it leane, and therefore it must not be sowne in a leane ground, where it euermore groweth but little, and where it proueth almost nothing worth; but rather in a ground that is well manured before it be sowne, as also renewed with dung when it is to be sowne. But the best approued ground of all other to sow woad in, is that which hath laine long swarth, and hath seldome beene broken vp before, wherein

wherein you are to obſerue, that in the ploughing vp of ſuch grounds, you muſt turne vp a great and a deepe furrow, laying them broad and flat, inſomuch that the ſeed may be throughly well couered, and that the ſwarth rotting vnderneath and aboue the ſame, may be as a warme and comfortable meanure to make it flouriſh and increaſe. Being ſowne of ſeed, it muſt be diligently harrowed, to the end it may be wel couered and incorporate with the earth, and when the plants haue put forth their leaues the height of two fingers, you muſt weed and digge 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 weed and digge the feet of the ſaid roots ſo left voyd of their leaues: and this muſt be continued euerie moneth, that is to ſay, Iune, Iulie, Auguſt, and September: in ſuch ſort, that euen as the leaues are gathered from foot to foot fiue times, ſo they muſt be digged 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 root, 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 injure them.

The manner of making Woad: Vnder your Mill, which would not be as ſome vſe a Mill-ſtone, for that cruſheth out the ſap and juice of the Woad too much, but a Mill made of ſtrong timbers the compaſſe of a large Mill-ſtone being hollow or deuided one out-ſide from the other, and running circular or round, and theſe out-ſides ſhall be bound together both in the middeſt by the drawing axell-tree, and alſo at the outmoſt Verdges, by ſtrong plates of yron made broad and flat, with reaſonable rebated edges, and theſe plates ſhall be at leaſt three foot in length, anſwering to the full bredth of the trough in which the Mill ſhall run, and this Mill muſt be drawne about by a horſe. Now the leaues (as aforeſaid) being ſtrewed in the trough vnder the Mill, you ſhall grind them as ſmall as may be, till they come to be as it were all one ſubſtance, which may eaſily be done, by oft turning the Woad ouer and ouer as the Mill runnes, which one muſt continually doe with a ſhouell, then the Woad being thus ſufficiently well ground, you ſhall ſtay the horſe, and take all the ground Woad out of the trough, and then fill the Mill with freſh Woad againe, and thus do till you haue ground all your woad, which being finiſhed, you ſhall forthwith mould it vp into great round balls, as bigge as a culuerine bullet, or twice ſo bigge as a mans fiſts, and theſe balls you ſhall place vpon fleakes or hurdles made of ſmall wands, pent-houſed, houſed, or couered ouer to keepe them from the raine, but all the ſides open in ſuch wiſe, that the Sunne or Wind may haue full power to paſſe through the ſame, and theſe hurdles ſhall be mounted one aboue another in many heights and degrees, and your Woad balls ſhall lye thereupon without touching one another till they be throughly well dried, then at the later end of the yeare, which is towards Nouember, you ſhall breake thoſe balls againe, and put them vnder the Mill, and grind them as before, and then taking it from the Mill, you ſhall lay it in great heapes in ſome coole vault kept for that purpoſe onely: and when vpon this laying together vpon heapes it ſhall begin to take heat, it muſt be turned, and in turning watered, vntill it be ſufficiently moiſtned: for as too much water drowneth it, ſo too much heat 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 euerie fourth or ſixth day, while it be throughly cooled indeed. And this worke muſt be verie carefully performed, for otherwiſe the woad would roaſt it ſelfe, and proue not any thing worth, which being ſo trimmed and ordered as it ſhould, it is left in ſome cold and paued place, vntill the time of the ſelling of it, and looke how much the longer it lyeth in heapes in this caſe, by ſo much it becommeth the better and finer. The countrie men of Tholouſe, in whoſe countrie there

To make Woad.

there groweth great ſtore of Woad, doe not grind their Woad-balls into powder, but gather it together by great veſſells full, and put vnder the Mill-ſtone to preſſe out the wateriſh parts of it, and 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 lumpes into their fats, where they put their Wooll to be died, a blew, blacke, or other colour, as it beſt pleaſeth the Dyers. The leaues thereof made into a plaiſter, doe reſolue impoſtumes, and heale wounds new made, they ſtay fluxes of bloud, heale the wild fire, and the vlcers which runne ouer the whole bodie.

Alſo the leaues of Woad thus ground, are excellent to kill any itch, ſcabbe, or other miſlike either in men or children, alſo it is moſt excellent for the diſeaſe in horſes called the Farcie, and cureth it verie ſodainely.

Chap. LVII.

Of the Taſell.

THe Taſell (called alſo *Venus* her bathing tubbe, becauſe it keepeth ſome 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 ſtalkes, to refreſh and water it ſelfe withall) ſerueth greatly (in reſpect of his head) for the vſe of Clothworkers, both to lay the Wooll of their new clothes ſo much as is faſt, as alſo to draw forth ſo much as lyeth looſe out of order amongſt the reſt: and it is as ſeruiceable or more vnto Cap-makers, after that the Cap is ſpun, wouen, fulled, and ſcoured with ſope, Walkers-earth, or other ſcouring earth: Now he that will reape profit by this hearbe, muſt make choyce of a good fat ground, well manured and tilled with two, three, or foure arders, and well harrowed: and then afterward ſow it with the beſt ſeed that poſſibly may be found, and that verie thicke, and when it hath ſhot out of the earth as in the beginning of May, then to make it cleane, and weed it with the hand, and in Iune and Iulie to digge it, if need be, in the end of September you muſt gather the heads that haue flowred the firſt yeare, leauing the reſt to grow for to be gathered the yeare following, at ſuch time as they ſhall be in flowre. The heads cut off, the plants muſt be planted anew in a well tilled ground, putting all the root into holes, from one to another (which is all one with the ordering of the Radiſh) and trampling the ground vpon them verie orderly and duely: and furthermore, to digge them when they begin to pricke and put forth branches, in March, Aprill, and May: and to cut them which are cankered or rotten, and ſo vnprofitable; that ſo the juice 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 downeward till the whole head be flowred, the flowre being once fallen, you muſt cut off the head either euening or morning, giuing halfe a foot of ſtalke thereunto. Furthermore you muſt not forget, that they muſt be ſet or ſowne 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 ſow 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 low and ſhort, and of leſſe commodiouſneſſe. You muſt not gather or bind them vp in bundells, but in a drie ſeaſon, towards the moneth of October at the furtheſt, and not any ſooner or earlier than the later end of September. Some gathering it doe leaue it at the barne to drie in ſome place by it ſelfe, becauſe it is ſubject vnto fleas or lice, and other ſmall vermine, which cauſeth the ſmall foot that ſhould hold vp the head to fall downe: others doe 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 wind, and not in the Sun,

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or in any moist place. Some drie them in the South Sunne, turning them twice or thrice, and after hanging them by paires in order vpon poles.

The Tasell is to be commended in this point, for that in the middest 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 assuageth likewise the greatach of impostumes which grow about the nailes, being applied thereunto.

Chap. LVIII.

Of Saffron.

As for Saffron, the best Farmers, and such as are most cunning in the ordering of plants, doe make verie much and highly esteeme of that which is called Bastard Saffron, and of the common people tearmed Parrot-seed, being the same that old writers call *Carthamus*: the plant is of no vse, the seed excepted, which purgeth flegmaticke humours, or else feeds Parrots, which are daintie and fine mouthed. This plant when it is growne vp being well husbanded and ordered, beareth certaine little thicke heads, like the heads of Garleeke, and in the middest 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 forth 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 hearbe, as there is in Anise or Fennell: when all is said, a good Farmer will make profit of euerie 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 toyle and of profit, as may be learned and easily vnderstood by the inhabitants of Tourain, Prouence, and Portugal, where the same growes exceeding abundantly: It is planted like cammomile in the Spring, vpon heads, foure fingers off one from another: but it must be in a free and well battilled ground, not verie fat, nor verie 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 forth, it must be left alone to natures worke. At the time of the gathering of it, you must haue linnen cloaths 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 forth fruit three yeares, and drie them in the Sun, keeping them after in some place that is not moist, that so you may plant them againe in some other place and ground that is well tilled, as hath already beene deliuered at large in the fiue and thirtieth Chapter. Some are of judgement that it is naught for a man to vse Saffron much, and that it is a speciall venime 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 venime of the heart.

Chap.

Chap. LIX.

A briefe and short reuiew concerning Pulse.

I Will say nothing of the Nauet, nor of the two kinds of Turneps, of which, the great and round one is for them that dwell in Lymosin, Arnernia, 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 Cummine; neither yet of great wild Tares, Lupines, Lentils, and Fenugreeke: vvhich notwithstanding are all pulse and seed of profit and commoditie for the houshold, as hauing reserued them for the pulse-garden, planted at the end of the kitchin-garden: I will content my selfe in this place to admonish the good Farmer, that for the bringing of the ground into some kind of occupation during the time of his rest, and after that it hath been imployed in bringing forth better corne, it will not be amisse to sow therein either Nauets or Turneps, foreseene that the seed, after the pulling vp of the plants, be so well and thoroughly gathered and carried away, as that the ground may be quite rid and voyd of the same, for otherwise in time there would be nothing to be found amongst this seed but wild Coleworts, Danewort, and other noysome 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 houshold, in what house soeuer it be. Some make a craft of making bread of Millet, as is to be seene in some places of Gascoigne, but it is not but when great necessitie driueth them to it. But howsoeuer it be, beanes, peason, fiches, and fetches, are not of lesse request or inferiour in tast vnto great wild tare, lupines, cummine, fenugreeke, and lentills: and for the proofe hereof, I wil call to witnesse the people of Aruernia, Lymosin, Sauoy, and Dauphine, 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 whole summe in the treatise of tilling of seeds and pulse in arable grounds.

Chap. LX.

Of remedying of strange accidents that may happen vnto Hearbes.

Hurtfull beasts.

THe Hearbes either sowne or planted in the gardens before spoken of, are not hurt onely by haile, lightning, thunder, frosts, fogges, blastings, and other harmes hapning by the courses of seasons, but also they are annoyed, by reason of wast and destruction brought vpon them by little beasts, as Grashoppers, Weazles, Caterpillers, house and field Rats, Cats, Moules, Pismires, Flies, Gnats, Bats, Wall-lice, Fleas, Greene-flies, Horse-leaches, Frogges, Snailes, Adders, and such like, which mischiefes you must be verie carefull to meet 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 these inconueniences, it is good, according to the counsell of Columella, to steepe the seeds for a certaine time in the juice of trickmadame, or to mingle with the said seed some soot, or else to water them with water wherein soot hath beene tempered: but it is better to speake of these things particularly.

Generally against all such beasts as doe hurt gardens, it is good to burie in such place

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 daies you shall find all these beasts gathered together into this place: before you haue done thus twice or thrice, you shall be prouided of the meanes 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 wild Vine, or else to fasten vnto the top of a high post an Owle, hauing her wings spread. *Against Haile.*

The Lightnings and Thundring will doe no harme, if there be buried in the midst of the Garden a kind 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 skinne of a Seale. Others plant manie Bay-trees round about the Garden. It is true, that to breake or dissolue the Thunder, accompanied with a great thicke cloud, threatening haile, there is nothing better than to ring the belles, as is vsed to be done in hot Countries, and to send forth the roaring sounds of the Canons, as is wont to be done at Sea: or else to set on fire some heapes of Weeds, or stinking and rotten Seeds. *Against Lightning. A Hedge-toad.*

There is nothing more hurtfull or dangerous for hearbes than Frost, which commeth when Snow and Ice are thawing. And for to preserue your hearbes from this inconuenience of cold, you must spread all ouer the ground great store of straw, and ashes withall aboue that: for by this meanes the heat of the earth will be preserued, and the frost hindred that it cannot enter. *Frost.*

If you conceiue that your hearbs 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 straw, or of weeds and shrubs pulled vp in the same place, and after to set them on fire: for the smoake thereof doth correct and cleare the duskish and cloudie ayre. *Against Mists and Fogs.*

Against blasting, which is a corruption happening to hearbes 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 verie great smoake: for this smoake will driue away and resolue the euill qualitie of the ayre 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. *Blasting.*

To preserue seeds from being eaten of birds, you must scatter round about your gardens wheat or barly sod in wine, mingled with hellebor: or else, water and steepe the seed in the decoction of cray fishes, boyled 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 lees of wine: or else scatter throughout the gardens, some boyled leekes, for so soone as they shall haue swallowed thew, they wil be easily taken vp with your hand. Some put ten cray fishes in a vessell full of vvater, which they couer and set out in the Sunne for the space of ten daies, afterward they water the seeds they would sow with this water twice; once before they be sowne, and the other eight daies after that they are sowne. By this meanes the seeds will not onely be kept safe from birds, but also from all other manner of beasts. *Against Birds.*

To take away all harme which may come by little beasts, it will be good to drie, vpon the skinne 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 Mints, especially amongst your Coleworts: or else to sow amongst your pot-hearbs 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 little Beasts.*

New Oyle lees, or the soot of the Chimney sowne all about in your Gardens, is good against Snailes. *Against Snailes.*

To keepe away Caterpillers, you must water your hearbes with water wherein haue beene steeped the ashes of the young shoots of Vines: or perfume your hearbes *Against Caterpillers.*

and trees with quicke brimstone. Some steepe the seeds in the lee of fig-tree ashes, and to kill the caterpillers, doe cast vpon them the ashes themselues: others like it better to plant a great onion called Squilla, or else to burne toad-stooles that grow out of the nut-tree: or else some great store of garleeke without any head, to the end that by the strong smell which shall rise thereof, they may die.

Womens termes. *Columella* maketh mention of a certaine and approued 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 alleys of the hedges, or walls of the garden. This done, you shall see the Caterpillers fall vpon the earth, from the hearbs and trees bearing fruit, neither more nor lesse, than and if by shaking you beat down the raine or water from a tree: but in the meane time there must be care had that this be not done at Sunne rise, because that then euerie thing in the garden would wither and pine away.

Against fleas or lice. If you water the fleas or lice with strong vinegar, mingled with the juice of Henbane, wherein the water of hemlocke shall haue boyled, or with water wherein Nigella hath bin steeped: or with the decoction of mustard-seed; they wil die shortly.

Against gnats. Gnats will be killed if you lay rue in steepe, and sprinkle the water about the garden: or if you make a perfume of Galbanum, or of Brimstone, or of Cummine, or of ox-dung. If you would driue away flies, make a perfume of Coloquintida, or water the place with water wherein it hath steeped.

Against the palmer worme. To gather together all the Palmar-wormes and other like beasts into one place, to the end you may kill them, you must spread in the place, especially where they abound, the guts and intrailes of some sheepe newly 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 entrailes.

Against Weazles. For to kill Weazles, you must steepe Sal-ammoniack and Wheat together, and sow them neere the place where the Weazles haunt, for by this they will either be killed or caused to run away if they eat it: Some say, that if you catch a Weazle and cut off her taile and cods, and let her goe againe aliue, that afterward there will be no moe seene in that place.

Against Ants. Ants will flie away if you burne those which you take, or if you annoint the barke of the tree which they vse, with oxe-gall; or with the decoction of Lupines: or else if you burne in the garden wild 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 wormes. You shall kill wormes, if you perfume their holes with the smoake 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 seed of hempe: or if you sow lupines in the ground where you see great store of wormes: it is true also that you shall rid your ground of them, if you eare your ground during the time of great heat, for then you shall find 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 hennes, 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 oyle, or with the soot of the chimney.

Against Grashoppers. Grashoppers will doe no great hurt vnto hearbes, if they be vvatered with vvater vvherein Wormewood or Leekes, or Centaurie hath beene stamped: Also to kill them, you must boyle bitter lupines, or wild cucumbers in salt brine, and sprinkle them therewith, or else burne a great sort of Grashoppers in the place from whence 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 dogge-daies, the seed of hemlocke into their holes, together with hellebor and barly meale: or else if you

you ſhut the mouthes of their holes with Bay-tree-leaues, to the end that when they would come forth, 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 meat ſuch as you know them to be delighted in, quicke-ſiluer, tinne, or burnt lead, blacke hellebor, or the ſcum of yron: or if you make a perfume of the bodies of their kinds: or if you boyle beanes in any poyſoned water, & ſo lay the ſaid beanes at the mouthes of their holes, which vpon the ſmell thereof will quickly run vnto them.

You ſhall alſo kill Rats and Mice with paſte made of honie, coperas, and ſtamped glaſſe mixt together, and layed in places where they haunt moſt. *Againſt Rats and Mice.*

Moules will neuer caſt in thoſe gardens where the hearbe called *Palma Chriſti* doth grow either of it owne accord, or purpoſely ſowne: likewiſe you ſhall either kill them or driue them away, if you lay at their holes mouthes a Walnut filled with chaffe, brimſtone, and perroſin, 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 furrows about the garden a ſmall ball of hemp-ſeed, 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 houre 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 run into the hole where they haue newly digged; for when as they once feele the water, they will not ſtay to come forth and ſaue themſelues vpon ſome greene 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 neere to their food, they will into the baſon one after another; and by how many moe goe in, by ſo much will they make the greater noyſe (not being able to get out againe) becauſe the baſon within is ſmooth, ſleeke, and ſlipperie. Some lay garleeke about their holes, or onions, or leekes, and theſe make ſuch a ſmell as that they either driue them away, or kill them. *Againſt Moules*

All maner of Serpents are driuen away with the perfume of *Galbanum*, or of harts-horne, or of the root of lillies, or of the horne 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 the Elder-trees by their ſtinking ſmell doe 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) driueth 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 Serpents.*

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 verjuice mixt with *Galbanum*, or the fat of a goat: or if you plant in your garden ſome little Nut-tree. *Againſt Scorpions.*

The perfume of Iuie will cauſe the Reremouſe to abſtaine flying in your garden. *Againſt Rats.*

Frogges will hold their peace and not crie any more, if you ſet a lanterne 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 goat, all the frogges will gather thither, and ſo you may eaſily kill them. *Againſt Frogs*

Chap. LXI.

Of the Honie-Bee, the profit rising thereof, and of chusing a place to set them in.

BVt 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 Countrie-house is Bees. Indeed there is some paines and care to be taken in chusing, gathering together, holding, feeding, watching and keeping of them cleane in their hiues: but withall, what so great, rare, and singular a commoditie haue we as the vvaxe which we enjoy 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 words, what should be the ordering and gouerning of them and their hiues, and withall at what time and houre it is good to gather honie and vvaxe.

The housholder therefore shall first make choyce for the keeping of 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 downeward with their load. But let vs see to it especially, that the place be open to the South Sunne, 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 winds 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 honie: and againe in such a place, as wherein there is great quantitie of Thyme, Organie, Sauorie, Iuie, Winter Sauorie, vvild Thyme, Rosemarie, Sage, Corneflag or Gladdon, Gilloflowres, Violets, white Lillies, Roses, flowre-gentill, Basill, Saffron, Beanes, Poppie, Melilot, Milfoile, and other sweet hearbes and flowers, wherein there is no bitternesse: and in like manner sufficient good store of trees of good smell; as Cypresse-trees, Cedar-trees, Date-trees, Pine-trees, Turpentine trees, Iuie-trees, Masticke-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 hearbes, and those of the rarest and least knowne, and withall such as grow in well tilled grounds and pastures, for these cause them to grow rich in good vvaxe, as the wild Radish, the wild Bell-flowre, wild Succorie, and blacke Pionie: and besides these, wild Parseneps, and garden Parseneps and Carots. Broome and the Strawberrie-tree are not altogether good for to make honie: the Elme-tree causeth them to haue the flux of the bellie, as also the tithimales or spurges Box maketh honie of a bad smell, and which troubleth their brains that eat it, and yet notwithstanding profitable for them which haue the Falling-sicknesse. But if at any time you shall chaunce to haue any of your stockes to miscarrie, or to dye, by what chaunce soeuer it shall be, you shall then by no meanes stirre the combes more than cleansing them from all manner of filth, and take of the best life honie you can get, damaske Rose-water, and the juice of Fenell, and mixe them verie well together, then with a bunch of Fennell dipt in the same, first sprinkle the combes verie well, and also rubbe the hiue within therewith, lastly rubbe the stone whereon the standeth, with the same that you did the hiue, and you shall be well assured that the first swarme that riseth either in your own or in any other mans ground (if it be not aboue a mile or two from you) will knit (without any other paines taking) in that stocke.

The place must be closed in with a verie strong hedge, or else with good vvalls, for

for feare both of beafts and theeues: for kine and fheepe doe eat vp their flowres, and beat the dew off from the flowres, whereof the Bees fhould load them, and which is fo well beloued of the little prettie birds, yea and that alfo, which falleth downe at the breake of the day in faire weather, and is purified on the leaues and flowers of the plants, hearbes, and wild trees: but of all tame beafts, there is none that doth fo damnifie thefe little prettie vvretches, as Swine and Goats: for the Goats waft their food, and jumpe againft their houfes, yea and oftentimes beat them downe: the Swine befides the wafting and eating vp of their food, rubbing themfelues againft the hiues, doe ouerturne them and the feats whereon they be fet: fheepe in like manner loofing fome of their lockes of Wooll vpon the hedges, are caufe that the fillie poore Bees now and then become intangled therein, when they labour to get their food, and fo leaue their carcafes for a pledge: hennes likewife haue a gluttonous appetite towards them: Serpents alfo doe fometimes take vp their Innes in their hiues: but to take away this cafualtie at once and for euer, you muft plant Rue round about them in good quantitie, in as much as venimous beafts cannot by any meanes abide this hearbe.

Callamint alfo is verie good to be planted for the fame purpofes neere vnto the hiues, fo is alfo the hearbe *Angelica* or *Gentiana*, but aboue all things you muft be carefull to make your hiues exceeding warme, that is to fay, of what ftuffe foeuer they be made, you fhall on the out-fide daube them better than two fingers thicke with lime and Cows dung mixt together, and ouer them a vvarme coat of long Rye-ftraw, couering the hiue from the top to the bottome, and hanging fomewhat below the ftone.

Their place alfo muft be farre off from the dunghill, common draughts or iffues, bathes, marfhes, fennes, dropping, dirtie, and myrie places, which might hurt them with ill fmells, and for that thefe prettie beafts are deadly enemies to all filthinefle and vncleanneffe: but rather let their place of abode be neere fome fmall brooke of water naturall and of it felfe continually running, or by art in fome chanell, that will conuey along the water drawne out of fome vvell or fountaine, and this rundle muft haue by the edges ftones or boughes of trees for the bees to light vpon.

But whatfoeuer the place is, whether in the garden of Pleafure or elfewhere (albeit we haue affigned this to be one of the fruits of pleafure to be gathered in the garden of Pleafure) it muft not be hemmed in with high walls on euerie fide: and yet if for feare of theeues, you were difpofed to raife them the higher, then you muft pearfe the wall fome three feet from the ground, and worke it with fmall holes, for the bees to flie through at, and fome twentie or thirtie paces off to build fome little houfe, if you be fo difpofed, for him to dwell in who hath the charge of looking to them, and therein alfo to put his tooles.

Chap. LXII.

Of the fafhion of the Hiues, and the manner of fetting them for Bees.

A Place and ftanding for Bees being thus appointed, the next thing is according to that fafhion which may be moft conuenient for the Countrie to make hiues. Some thinke, the beft are thofe which are made of quarters of fawne boards, vvide ynough, but not verie long: others you muft haue both long and narrow, that fo you may haue two forts of hiues, that is to fay, great and fmall ones: the great ones, for fuch as are to be imployed in the making of Honie, and the other, which are the little ones, for fuch as are to fwarme and caft: the faid boards being fitted together with nailes, but yet fo as that one or two of the boards

may be lifted vp when the honie is to be taken, or the said hiues to be made cleane: the hiues which are best and most conuenient next vnto these, are those which are made of Barke and of Corke: and next vnto them, those that are made of Palme-tree and Sallowes, such as we see in this countrie: the worst are those which are made of baked earth, for they scald with heat in Sommer, and freeze with cold in Winter. I find those nothing conuenient which are made of dressed straw, or of brickes: for the one is verie subiect to the fire, and the other cannot be translated or carried from one place to another, if need should require. Yet those of straw may verie well be indured and imbraced if they be well lookt vnto, because the Bee-garden is seldome within the danger of the fire; onely the worst fault they haue is this, that Mice are verie apt to breed within them, and to destroy the honie as it is gathered, yet notwithstanding in such places where wood is scarce, they are not to be refused, neither in the cold countries, because of all hiues they are the warmest. There are also other hiues which are made of splinted wands of hassell or such like pliant wood, and they are esteemed the best of all other, and are indeed the sweetest, safest, and easiest to worke in; prouided, that they be trimmed, daubed, and thatched as is before said: Now againe in your hiues is a great care to be taken touching the proportions of them, for although the auncient allow but a cubit wide, and two in length, yet is a cubit and a halfe not amisse in the bottome, and two and a halfe in length, for the largenesse of a hiue (if it be not too vnreasonable) neuer doth hurt: and whereas some vse to make two sorts of hiues, a greater and a lesser, if you make but one sort, and those large ones, it will be euerie way as good, for you shall many times haue occasion to inlarge your hiues, but verie seldome or neuer to straiten them, for all that curiositie it selfe can speake against them that be great hiues, is but onely this, that it is long in casting, and casteth seldome, whereas, on the contrarie part, the little and small hiue casteth more soone, and farre ofter, yet this is most certaine, that one swarme taken from the large hiue, is better than two swarmes taken from the little hiue, being both more strong and more able for their worke, and a great deale more better able to endure Winter, nor is it the number of stockes which inricheth the farmer, but the quantitie of the honie.

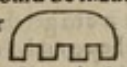
Moreouer, they must be wide beneath, and narrow aboue, they must be a cubit wide, and two cubits high, drawne ouer and drest on the out-side with lime and ox-dung mingled together, that so they may continue the longer: Neither must they be made as some are flat at the top, and shallow, but ascending pyramid wise, smaller and smaller till it come to the top, for thereby it both sheddeth off the raine much better, and maketh the frames of the Bees a great deale stronger. These hiues you must crosse-barre within with clouen stickes verie well rubbed with sweet flowers, vpon the which the Bees must fasten their combes; and these crosse-barres must be in two places of the hiue, that is, neere to the top, and neere the bottome. They must be set vpon boards fitted for the purpose, and that neere vnto some vvall, but not close to it, that so there may be space for one to goe about them and make them cleane: or else you may set them vpon some vault of stone or of bricke, to the height of three foot, and as much in bredth, layed ouer with mortar on euerie side, and planted, that so the lizards and serpents, and other noysome cattell, may not get vp and clime thither for to hurt them.

The setting of hiues.

But the best and safest manner of setting of hiues, is to driue three strong stakes into the ground, so as they may stand of one euen and just height, and about two foot and a halfe aboue the ground, then vpon these stakes you shall lay a faire large paving-stone that may reach euerie way halfe a foot or more beyond the stakes, and vpon that stone you shall set your hiue, for by that meanes neither Mouse nor other small vermine shall get to annoy the hiues.

Moreouer, the hiues shall be so set, as that there may be a distance betwixt the one and the other, to the end that when need 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 adjoyning Bees: vvho doe

greatly

greatly feare when they are touched, leaſt their workmanſhip of Waxe (which is verie weake and eaſie to be ſpoyled) ſhould be ſtirred or broken. The fore-part, where they go in, muſt be hanging ſomwhat forward, that ſo there may not any water or dew fall into it: and when as anie, by hap, ſhall fall in, that then it may not ſtay, but find that as a readie way 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 heat, although heat doe not ſo much hurt vnto Bees as cold. Alſo you ſhall with a cloſe binding mortar daube the Hiue as cloſe as may be to the ſtone, that if anie raine happen to fall thereupon, yet it may by no meanes ſinke into the Hiue, but rather fall off, and ſhed vpon the earth. And therefore behind the Bees as they ſtand, there muſt be ſome building, or elſe at the leaſt a wall, which may be vnto them in ſtead of a Sunnie banke againſt the North wind, and withall, may keepe the Hiues in a moderate warmth. And furthermore, Hiues, though they be thus defended and couered from the cold by this building, yet they muſt be turned vpon the Eaſt in Winter, rather than vpon the South (becauſe if they were turned toward the South, they would be layd ſore vpon by exceſſiue heat in Summer:) to the end, that in the morning the Bees, for their earlier comming forth, may haue the Sunne hot vpon them, for their better wakening; whereas otherwiſe the cold would make them heauie and ſlouthfull: 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 venimous Stellion, nor the villanous Beetill, neither yet the Butterflies, ſhall poſſibly enter to rob the Hiues and Honey-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 thereby, 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 meet, 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 Tyles, 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 ſaid Paper lights, that ſo they may paſſe forth along at their pleaſure whither they are diſpoſed. Yet this is a curioſitie ſeldome or neuer vſed amongſt Beemaſters: and therfore, in mine opinion, if you keepe them cloſe, without any more than their ordinarie dores to paſſe in & out at, it wil be beſt: and theſe dores would be made of a fine thin board, or a piece of an old worne trencher, cut in this maner  and ſo fixed into the bottome of the Hiue, on that ſide on which the Sunne moſt commonly riſeth: and all theſe dores you ſhall keepe open from the later end of Aprill till September: but after, which is the dead time of Winter, you ſhall cloſe them vp, and keepe but one open at the moſt, and that no bigger, than a Bee may well paſſe through the ſame.

Chap. LXIII.

Of what qualities and conditions the Bees muſt be.

That Bees are made of the rotten neſſe of ſome bodie.

I Will ſay nothing in this place of the engendring of Bees, as whether it be by the coupling of males and females together, as wee ſee in other kind of creatures, or by the corruption and rotting of the bellie and entrailes of the bodie of a young Bullocke (whereof *Virgil* ſpeaketh) which are knowledges not greatly belonging to the Husbandman; becauſe, howſoeuer bred, he findeth them in his Hiue without anie further induſtrie: yet for ſatisfaction, it is doubt-

doubtlesse, that Bees are bred of Bees, either of their blowings, or some other matter of their generation: but the first is most likely, because the first combes which the Bee frameth, she filleth with her young, before she labour for honey, and these young are at first but little bigger than flye-blowes, white and long, and so encreaseth till it produceth a shape, which taketh life in the combe, and then departeth thence, and laboureth amongst the other Bees: yet being straitened in the Hiue, and wanting roome to lodge their honey in, as soone as the warmth of Summer commeth in, they with one consent depart the Hiue, and seeke out some other place wherein to imploy their labours: and these are called the swarmes, or encrease of young store, which the elder stocks bringeth forth. But letting passe these digressions of the workes of nature, I will describe them as they are alreadie engendred; as, what be the properties of such as are fit and like to make good honey. There are manie sorts of Bees: for some are of a golden colour, cleare, shining, and bright; others blackish, rough, and hairie; some great, some small; some thicke and round; and others spare and long; some wild, and some tame. But and if you would buy or gather together Swarmes out of the Forest, to take their honey from them, looke and take good heed that they haue the markes following; as, that they be little ones, somewhat long, not hairie, neat, golden coloured, shining and sparkling as gold, spotted aboue, gentle and louing: for the greater and longer that Bees be, the worse they are; and if they be cruell, they are nothing worth; 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 marks aforesaid, if he see them not: if you buy them, before you cope for them, you 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 goe by gesse and ayme, 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 retyred, and at rest: in putting your mouth to the Hiues mouth, and blowing a good blast into it, you may perceiue whether there be manie, or few, by the noise which they will presently make when they feele the breath. Or where you shall make doubt of anie of these former signes, there you shall take the Hiue from the stone, and poise it vnder your arme, and according vnto the weight so you shall chaffer for it: because if you see it is well replenished with Bees, and also verie heauie, then you may assure your selfe it is an excellent Stocke, rich both in Cattell, Wax, and Honey, and so consequently worth your money: but if it be light, though it promise neuer so manie Bees, yet it is but casuall: for either the swarme fell late in the yeare, so that they wanted time to get their prouisions; or else the yeare was vnnaturall, and too moist, whereby they could not worke; or else the Swarme was weake; anie of which will hardly endure out the Winter following: and in that respect the buyer ought to be verie heedfull of his purchase. Now it is an old receiued opinion amongst old Bee-masters (how true I leaue to your iudgement) That those Bees prosper best, which are either giuen, or come by chance: Truly I would not persuade anie friends of mine, that can get Bees at this reckoning, to goe to higher rate, for sure the easinesse of the purchase makes the profit so much the greater, and in that respect the saying is true, but no otherwise, I am fully persuaded. Others are of opinion, that stolne Bees thriue best; but I would haue no man beleeue it: for I neuer knew profit in dishonestie; neither is it possible that there can be anie blessing giuen vnto an act of so much wrong, as the taking away of another mans goods commeth to: yet this hath beene an old receiued opinion, and for knowledge, not for practise, I relate it. 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, Ayre, and Countrey, doth astonish and amase them: besides also, the further they are carried, 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 than by high wayes, and that the rather in the Spring than in Winter, as also verie softly, for

The carefull choice that is to be made in buying of Bees.

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 day time they must be let rest, and haue giuen vnto them some sweet liquor, that so they may haue to feed 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 forth peaceably in the morning: although yet it were better not to alter or change anie thing about them for the space of three daies, but to stop vp the mouth with some thinne cloth, vntill the Sunne haue shone, and in 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 Forests, 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 them, it is not possible to make such choice as he would: and therefore he must be content with that which commeth next to hand; and yet not to be negligent to purchase and get the best that may be come by, and to take good heed not to mingle the good and the bad together, for so the bad would dishonour the good, and there would be a great deale lesse honey, because of the bad and slouthfull ones which are mingled amongst them. The gathering of them shall be after this fashion: When you haue found anie place, by which great numbers of Bees doe passe (which is commonly in Woods and Forests where Hearbes doe abound, and Trees of sweet smell, neere vnto some small Riuer or Fountaine) you shall vse all diligence to find 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 Balme and Thyme bruised, with other such like hearbs which Bees loue, and therewith annoint your Hiue so throughly, as that the smell and iuice thereof may stay behind: after that, you shall make the Hiue cleane, and sprinkle it with a little honey; and hauing thus handled it, you shall set it downe in the Woods or Forests, neere vnto the Springs, and when it is full of Bees, you shall carrie it home. And thus much of gathering swarmes of Bees.

Choice of Bees which are gathered in the Forests.

Chap. LXIIII.

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 affoord them a more diligent and attentiue kind of gouernment, and ordering, than anie 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 kind of liuing creature: yea, seeing she hath a kind of wisdome comming neere vnto the vnderstanding of man, therefore she looketh for a more carefull manner of vsage and carriage towards 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 entreated. 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 be. They haue a King whom they obey as their Soueraigne in all things, accomplishing and fulfilling whatsoeuer hee shall giue them in charge, whether it be to goe forth, or to returne home, or to stay within: and they attend him alwaies in companies wheresoeuer he be: they comfort him

The manners of Bees.

him if at anie time he be ſicke, and doe keepe about him if he cannot flie: not one of them is negligent and ſlouthfull, but euerie one readie and quicke to anie kind of worke. Some of them gather the Roſes, and bring home what they get of flowers and ſweet ſmelling leaues, vnto thoſe which ſtay within the Hiue making Honey: others are buſie in making Combes, and building of little Cabbins; ſome make Honey, and others attend other matters and vocations: ſome lay to their hands to the ſoftening of Waxe, and temper it ſo well, as that making thinne leaues thereof, they therewith build vp and frame them Celles and Cloyſters: others with great labour doe ſunder the groſſe and droſſie ſubſtance, and make readie a place for euerie ſort of Honey. Some of them with their paine and diligence doe keepe cleane the Hiues, which notwithſtanding are neuer defiled by anie of their owne dung, for alwaies in flying abroad they auoid their excrements in flying. 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 annoy and hurt them. They carrie out ſuch as die within the Hiues: but when their King is dead, they ſtirre him not from his place, but crowding one vpon anothers backe about him, it ſeemeth that they lament and mourne, as they make ſhew by their noiſe and humming, and that ſo vehemently, as that if their keeper doe 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 brieſe, euerie one of them is ſo diligent at his worke, as that they cannot beare it, that anie one ſhould be in their companie that ſhould 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 anie thing elſe, but to waſt the honey, and deuoure it. They hate, aboue all things, euill ſents: they neuer flie againſt the light, nor vnto anie fleſh, or bloud, or fat, but content themſelues with leaues and flowers onely, which haue a ſweet 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 Bells, or in hitting the hands in a ſoft and eaſie ſort one againſt another. To be brieſe, their faſhion and manner of liuing 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.

Chap. LXV.

The order of gouerning Bees all the yeare long.

WHoſoeuer he be therefore that hath the charge and ouerſight of the Bees, muſt be carefull firſt of their paſtures (whereof we haue made mention before:) then he ſhall diligently looke vnto their Hiues twice or thrice a moneth, beginning at the Spring, and continuing till Nouember: for there is not that time in the yeare wherein they ſtand not in need of ſomething: and if they be well ordered, they will continue tenne yeares. They muſt be opened about the moneth of March, and the Honey-combes made cleane with a verie ſtrong and ſolide feather, when as they cannot be come by with the hand, that ſo, whatſoeuer filth is gathered there in the time of Winter, may be caſt out, and the Spiders webs, which ſpoyle all the Combes, may be taken away: afterward he ſhall ſmoake 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 being waſhed, made cleane, and well apparrelled: in like manner hee muſt abſtaine from all meats that are of a ſtrong ſmell, as are all ſalt meats, and ſowſed meats, and all

all things being ſtrong of ſent, as Garlicke, or Onions, or ſuch like things: and contrariwiſe, let him carrie in his mouth ſomething that hath a good ſmell; for by this meanes they will loue him ſo well, as that he may handle their Hiues at his pleaſure, and the little pretie birds will neuer hurt or annoy him. At the ſame time (in as much as then they begin to multiplie and encreaſe, and to caſt their ſwarmes, which ſo ſoone as they can flye, deſire nothing more than to flye away, and not to abide with the old ones, and much leſſe to become ſubiect vnto them) it will be meet to keepe watch verie diligently, and that from after the morning tide is paſt, till two houres after noone, that ſo they may not flye vnto ſome other place. Wherefore if you can *Kings of Bees.* diſcerne and ſpie out their Kings, it will be good to take their wings from them, if they make ſhew of themſelues oftentimes, and ſeeme as though they would flye together with their companie; 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 not goe out of their owne yard, nor out of the limits of their owne kingdome; neither will they ſuffer their troupe to goe farre from them: or elſe it will be good, after that they are come forth, to aſtoniſh and occupie their minds with the ſounding of Baſons, or of the ſhards of broken Pots, ringing forth ſoftly, in as much as by how much you ſound the ſtronglier, by ſo much they mount the higher into the ayre, and ſtray the further off: but and if it be a gentle and low ſound, they in like manner doe ſtay and keepe themſelues neere at hand and below. And if they proceed 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 ſweet Balme, or ſome drops of Honey, 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 verie 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 goe in no where but at the place which is open vnderneath. But and if this ſwarme of Bees, or little Birds, be got into anie hole or cleft of the bole and bodie of a tree, then carrie thither a Hiue well annointed in euerie place, as alſo at the hole or mouth, with verie ſweet ſmelling hearbes, and draw it ouer this hole and entrance of hollowneſſe, to the end you may inuite them to a banquet with the delightſomeneſſe 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 hand, and ſuch a one as is withall ſomewhat vneaſie to be dealt with, then take a pole, and tye to the end 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 neere vnto the Hiues, for no doubt but they will goe vp and ſettle themſelues in a ſhort time. Or elſe, which is the beſt, hee ſhall hold, all readie, a new Hiue to receiue them, when hee ſeeth that the young Kings ſhall be come forth with their young traine, which within a day or two will all be come together at the mouth of the old ſtocke, and ſhew by ſufficient ſignes and tokens, that they are deſirous of ſome place of their owne, and peculiar vnto themſelues: for then if he doe giue them one, they will reſt contented therewith, and abide therein.

It is to be knowne when this young hoaſt 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 remoue: and for to know when they make this noiſe, he muſt lay his eare at euening to euerie Hiue, that ſo he may heare the noiſe and humming, when they make any.

And yet indeed this noiſe and humming is ſometimes a ſigne and token of ſome *Warres amongſt Bees.* fight or ſtrife raiſed betwixt them and ſome other ſwarme: which muſt be well preuented; for otherwiſe by ſuch ciuile warres and deadly fighes 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 boyled wine ſet vnto them, or elſe ſome

honied

honied wine,or other ſuch liquor,which by his ſweetneſſe 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 haſt 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 ſhall let them alone till they be in their Hiues. But and if the whole troupe be diuided into manie clewes, or round bunches, you need not then doubt but that there are manie Kings,and that they doe not agree together. And then where you ſhall ſee them gathered moſt on a heape, and in greateſt troupes, there you may ſearch and looke for the King, annointing your hand with the iuice of ſweet Balme, or with Honey, that ſo they may not flie away when you ſhall touch them; and ſeeke thus amongſt them vntill you haue found the King, which is the author of all this warre, whom you muſt kill and caſt out. And thus you may diſcerne and find out the Kings from the commons: The Kings are ſomewhat greater and longer, their legges more ſtraight and high, their wings leſſe, but of a faire colour, and neat, 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 doe anie harme. Some Kings are found to be black and hairie, and ghaſtly to behold, and theſe are of the worſt ſort of Kings, and muſt therefore be killed, notwithſtanding that they moue no warre, nor ſtirre vp anie coales amongſt the young ſwarmed brood. Thus you ſee there is no cauſe to be aſtoniſhed with maruelling, 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 own liues into open hazard againſt all his enemies which come to aſſaile him, beſides other incredible obeyſance, which they let not continually to yeeld vnto him.

To kill the Kings of the Bees.

The marks and ſignes of the Kings of the Bees.

The Hiues that ſhall be made readie to receiue the new ſwarmes, muſt be rubbed with the hearbes before named,and ſprinkled with drops of Honey, 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 hardneſſe of the Winter paſt, or of ſome diſeaſe and ſickneſſe,there is great want and ſcarſitie of Bees in old ſtocks,and this muſt be remedied by putting a new ſwarme into that Hiue, and killing the young King, that ſo his ſubiects may content themſelues to liue peaceably vnder the old. But and 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 ſweet liquor, and after to ſhut them vp in the ſame Hiue, and ſet ſomething within it for them to eat,vntill they be well wonted vnto it,and ſo to keepe them three daies cloſed vp,giuing them onely a little freſh ayre at ſome ſmall and little holes. And if it come to paſſe, that the King of the old Hiue, which we ſhall haue left aliue, doe die, then you muſt chuſe them another King from out of the other Hiues (where there be manie) and giue them him to gouerne. And in caſe that meanes to doe this doe faile, or that there be not anie purpoſe or inclination to take new ſwarmes from other Hiues, you muſt then breake downe all the little chambers and lodgings of their young Kings, to the end that the young ſwarmes, which ſhall be together in the old Hiue, may not betake themſelues to their firſt haunt,and ſtill abide and continue vnder the old, but their new King and Captaine: and this they muſt of neceſſitie doe, being compelled through want of their naturall and chiefe Gouernours, and by keeping themſelues with their Ancients.

In rainie weather, continuing long, Bees not being able to goe out of their Hiues to ſeeke paſtures, and to bring home food vnto their young brood, you muſt not faile to helpe them with ſome prouiſion of Honey, vntill ſuch time as they ſhall be able to flie abroad to get their owne liuing, and to worke their Honey-combe of: for other-

otherwise you shall quickly make an end of them, as it hath beene oftentimes seene to come to passe.

All the Summer they must gather Honey (whereof we will speake hereafter) and at the same time, euerie tenne daies, their Hiues must be opened and smoaked with Oxe dung, and afterward be cooled, by watring the emptie parts of the Hiue, and casting thereinto coole water: and likewise be made cleane, and all grubs taken out of them, if anie be therein: and after this, let them rowle and tumble themselues vpon the flowers: and then you must not take anie thing from them, that so you may not annoy and become tedious vnto them too oft, and so cause them to flye away 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 pluckt away, which sometime was leane and thinne, you must not therefore kill the Bees, as manie 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 smoake, 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 forth againe for their comfort, and that well couered, stopping without, whatsoeuer clifts and holes, with Mortar and Neats dung mingled together, in such sort, that there be nothing left open, but onely a way for them to passe in and out thereat: And also this must be carefully looked vnto, that although their Hiues doe alreadie stand vnder couert, yet that further, they be couered againe with stubble and boughes, and so much as possibly may be, kept from Cold and Winds, which they feare and abhorre more than anie other thing. You must foresee likewise, that neither Raine nor Snow may doe them hurt: and also make prouision of store of the iuice of sweet 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 need to eat the Honey vp that they haue made, and which is left vntaken from them, it wil 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 figges, stamped or tempered in water or boyled Wine: It will be good likewise to giue them some Raisins out of the Frayle, stamped and sprinkled with water: or else some Corans, stamped with verie good Wine, and boyled together: or else some drie Apricots, stamped with Honey, and mixed with boyled water: or of Pancakes made of verie ripe Corans, of the best Figges and boyled Wine mixed together: or else to cast amongst them, in at the doore of the Hiue, some sweet liquors, with Siringes, as Milke, and especially Goats Milke, as the best of all the rest, to beare out the scarcitie and pooreneſſe of the time, vntill the Spring approach.

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 doe serue for some thing; for they hatch the young brood, whereupon come the small Bees: and therefore you must not kill them all, but keepe a certaine number of them, to the end that the Bees may not grow slouthfull and idle.

Chap. LXVI.

Of the remedies of the diseases that Bees are subiect vnto.

The diseases of Bees.

THe Bee is subiect vnto the Plague, in which case there is no more souereigne a medicine for them, than to carrie them farre off. Againe, they are troubled with the flux of the bellie in the beginning of the Spring, when the spourges are in the flower, and the Elme-trees bring forth their seed, where they are giuen to feed greedily, and with great stomacks, as hauing fasted all Winter: and they be so desirous to eat of these new and young flowers, as some folke are to eat of new Apples; and thereupon they die quickly, if it be not speedily foreseene: in such sort, as that in some places of Italie, where the Elmes doe grow vpon plants, the Bees cannot continue or endure long. For this cause, you must quickly helpe this flux of the bellie with the rindes or seedes of Pomegranats pownned and searced, and afterward mixed with Honey, and sprinkled with good sweet Wine: or else with Damaske or Languedoc Raisins dried, pownned, and mixed with good sweet Wine, or with honied water, wherein hath beene boyled Rosemarie: or else with figges of Marseilles, which haue beene boyled a long time in water: all these giue them in pots or pipes of wood, to the end they may eat and drinke thereof.

Bees are sometimes sicke, when as euerie yeare continually there is great store of flowers: for the Bees thereupon labour rather to make great store of Honey than anie young Bees; and so it commeth to passe, that manie die of excessiue toile and trauaile: and further, because those which remaine are not supplyed with young and new store, they likewise die all of them. Wherefore, when in the Spring time the medowes and fields are filled with flowers, it will be good euerie third day to stop vp the places whereat they goe 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 Honey; and that so also, when they perceiue that they cannot fill vp all their Waxen chambers with Honey, they may apply themselues to fill them with young Bees.

Lice and Grubs.

If Lice or Grubs, which are engendred of the filth in their Hiues, do trouble them, you must smoake them with a bough of the Pomegranat or wild Figge-tree.

Heat, or Cold.

They fall into a Consumption, and become all dried away, after hauing endured a verie great heat 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 happeneth to them, they must haue meat made of Honey boiled and beaten with Galles, or drie Roses.

Fighting betwixt swarmes.

You shall stay the brawles betwixt swarmes, if you cast vpon them some small dust, or boyled 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 goe amongst them oftentimes.

Corrupted Combes.

Sometimes there is such store of Honey-combs made, as that for want of Bees they stand emptie: whereupon it commeth, that they rot and destroy the Honey by their rottennesse; and the spoyle of the Honey 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 verie sharpe and well whetted toole.

Against Butterflies.

The Butterflies, which vse sometimes to hide themselues in the Hiues, and doe 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 narrow mouthed Tinne-pot, with a burning Light in the bottome of it,

for

for presently all the Butterflies will hasten and flie thither vnto the light, and flying about it, will burne themselues: for they cannot easily, from a narrow bottome, flye right vp, neither yet shunne and auoid the light, in getting themselues farre off from it, seeing they are forcibly kept within a narrow scantling, the pot it selfe being not wide, but narrow.

To kill Drones, which doing no good, deuoure the Honey: 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 flye vnto those couerings to coole themselues and quench their thirst, which they haue gotten by eating too much honey, and then it will be an easie thing to kill them: and as for stinging of you, you need not feare it, for they haue no sting at all. *Against Drones.*

Chap. LXVII.

Of the manner of gathering Honey.

For the gathering of Honey, about which there is so much labour taken continually, it is chiefely effected at three seuerall times of the yeare, as shortly after the Spring, all the Summer, and in the beginning of Autumne. But there cannot anie 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 malecontented, and cease to worke anie more, by reason of the thirst which they endure. The time of gathering Honey is knowne, by the Bees their no more making of a great noyse, but turning the same into a soft and low buzzing: as also, if the holes which are aboue in the vessels be stopped with Wax: if the Bees driue out the Drones, which are like vnto Bees, but a greater beast, and altogether vnprofitable, and without taking of any paine; for they gather no food, but eat vp that which others bring in. The houre of taking the Combes, is commonly in the morning, for it is not good to disquiet and trouble them in the heat of the day: and this must be done with two yron 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 doe well to moisten these two tooles oftentimes in water, that so the Wax 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 fruit 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 Summer; but in Autumne two parts must be left, and the third onely taken, for by this meanes you shall not much discontent them: and withall, you shall leaue aboundantly behind for them to eat and feed vpon. The gathering of Honey most commonly vsed, and most reasonable, is but to take the most ripe Combes, and those which are best perfected, and withall, of them but two thirds. If the Hiue be halfe full of Honey, 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 forth with the smoake of Neats dung, or of a Wolfes bladder, or Galbanum, or wild Mallowes; and with the iuice of this hearbe must he be annointed which shall gather the Honey, to keepe him that he be not stung: or to make him bold, 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 cloth, close wrythed about his necke and head, and gloues vpon his hands, for to geld and handle them to his good contentment: or, which is better, let him haue a Linnen hood to compasse and goe ouer his whole face, made of a most fine and close-wrought Kall, like vnto Net-worke, for by this meanes a man shall see at his pleasure that which he goeth about to doe, and yet be free from *The gathering of Honey.*

the danger of the Bees ſtinging. But notwithſtanding that you take from the Bees their worke of Honey and Wax, yet you muſt not kill them, nor driue them farre 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 anie vngratefull crueltie, in ſtead of recompence, and murtherouſly maſſacre them. In the Countrey of Tuſcanie, in remembrance of the bountifulneſſe of this poore cattell, it is forbidden vpon a great penaltie to kill Bees, ſo long as poſſibly by anie 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 ſmoake them in ſuch ſort, as that they may withdraw themſelues ſafely into ſome corner toward the middeſt of the couering of their Hiue, and not to come forth: or elſe you ſhall make them come forth, the couering of their Hiue taken away, and a ſacke tied to the mouth of the Hiue, and after ſmoaking the Bees from vnderneath, for ſo they will betake themſelues into the ſaid ſacke, which muſt be faſt tied and layd vpon the ground, vntill that the Honey be taken away at leiſure. After this, the Hiue or Veſſell muſt be ſet to the mouth of the ſacke, 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 emptie Hiue, which ſhall be perfumed and hung about with ſweet ſmelling hearbes, and it ſhall haue a hole in the couer as bigge as ones hand made round, to the end that Bees may goe 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 Honey as is in the Hiue, and not looſe anie part of it, ſeeing that it may be taken forth at anie houre 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 heapes into ſome corner, or elſe by conſtraining them to flye ſome whither elſe. The Combes being taken away, ſhall be carried to the place where you meane to make the Honey, 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 ſmoake which may driue away them that ſhall aſſay to come in. And this ſmoake would be made of greene Wood, wet Hay, Roſemarie, or ſuch like, which ſendeth forth a ſharpe and piercing fume.

Now, though this be the opinion of the auncient Bee-maſters, yet experience hath taught vs in theſe later times, that it is much better vtterly to kill and deſtroy thoſe ſtocks from whom you intend to take your Honey, than thus to robbe them: for it is certaine, that theſe Bees, thus ſpoyled of their wealth, and wanting weather, flowers, and other meanes whereby to renew their ſtores againe, doe forthwith become robbers themſelues, and ſpoyle all the neighbour-Hiues which are neere vnto them; as alſo they breed a ciuile warre and much ſlaughter amongſt other Bees: and therefore it is better vtterly to deſtroy them in this ſort; either at the cloſing of the night, when the Sunne is ſet, and euerie Bee come home, you ſhall gently take the Hiue from the ſtone, and ſowſe it into a ſowe of water, and there let it ſtand till all the Bees are drowned, and then take out the Honey and the Wax: or elſe with a Fuſſe-ball, or ſome ſharpe ſmoake, ſmoake them to death, and then take their wealth and diſpoſe it at your pleaſure.

CHAP.

Chap. LXVIII.

Of the making of Honey and Wax.

YOu must make your Honey 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 Ozier basket, wrought verie cleare, and fashioned like an Hypocras bagge, after that you haue once cleansed away from the Combes the seed of young brood, and all manner of other filth: and when the Honey shall be runne through 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 boyling and casting forth of his froth by staying in the same: this done, the pieces and lumps of Combes shall be taken out of the basket, and pressed, and there will Honey 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 verie excellent, may not be corrupted thereby. After that the remainder of the Combes is throughly pressed out, and washed 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, shall be strained, letting it runne out into water, and then being melted againe, with water you shall make it vp into what forme you will. *To make Honey and Wax.*

Chap. LXIX.

Of the marks of good Honey.

THe good Farmer maketh gaine of euerie thing, and by whatsoeuer hee can perceiue necessarie for the inhaunsing of his house. Now I dare boldly affirme, That there are few things found about a Countrey house, which are of greater encrease and aduantage than Honey. Againe, wee see what traffique the Spaniards make with it: who, through the barrennesse of their Countrey, hauing no other meanes to enrich themselues, doe keepe a great number of Bees, to make much Honey of them. In like manner doe the inhabitants about Narbone; who send amongst vs great quantities of white Honey, which wee make serue for our vse. But I would aduise such as make a traffique hereof, that they would not gather anie Honey but that which is good: for the labour and cost is no lesse to nourish and keepe bad Bees, than to keepe those which are good.

The markes therefore of good Honey are, that the Honey be of a yellow colour, pleasant smell, pure, neat, and shining in euerie part, sweet and verie pleasant to the tast; and yet notwithstanding this, hauing a certaine kind of acrimonie, or sharpenesse: of an indifferent consistence 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 thick 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 boyling, and yeelding but small store of scum when it doth boyle: aboue all it may not exceedingly smell of Thyme, though some (as I my selfe doe know) doe greatly esteeme of such. And that which is gathered in the Spring, or Summer, is much better than that which is gathered in Winter. White Honey is not of lesse goodnesse than that which is of a golden yellow, so that there accompanie it the other marks of goodnes, such as that is which the *The marks of good Honey.* *White Honey.*

Spaniards and men about Narbona doe send vnto vs, being verie white, and sufficient firme and hard, and therefore better, without all comparison, than anie other sort of Honey.

New Honey. Old Wine.

Honey the newer it is, the better it is, cleane contrarie to Wine, which is more commended when it is old than when it is new. This also is to be marked in Honey, that as Wine is best at the mid-Caske, and Oyle in the top, so Honey is best towards the bottome: for by how much Honey is more firme and heauie, so much it is the better, as being the sweeter.

Honey is best at the bottome.

The vertues of Honey.

The vse of Honey serueth for manie things: it prolongeth life in old folkes, and in them which are of cold complexion: that it is so, we see, that the Bee, which is but a little creature, feeble, and weake, liueth nine or tenne yeares by her feeding vpon Honey. The nature of Honey is to resist corruption and putrifaction: 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 Honey, which causeth the haire that is fallen away to grow againe, in what part of the bodie soeuer it be.

The tearme of the Bees life.

The distilled water of Honey.

Chap. LXX.

The manner of preparing diuers sorts and diuers compositions of Honey.

THere is such excellent vertue in Honey, as that it preserueth and defendeth things from putrifaction and corruption: which is the cause, that when anie are disposed to keepe Rootes, Fruits, Hearbes, and especially Iuices, it is ordinarily accustomed to conserue them in Honey: whereupon it commeth, that wee vse these names, Honey of Violets, Roses, Rosemarie-flowers, Damaske-Raisins, Myrtles, Anacardie, Buglosse, and such like, which are made with iuice and Honey; of which onely we will speake in this place.

Honey of Violets, Roses, &c.

The Honey of Violets, Roses, Buglosse, Mercurie, and Rosemarie-flowers, are all prepared after one sort: Take of the iuice of new Roses a pound, of pure white Honey, first boyled and scummed, tenne pounds, boyle them all together in a Cauldron vpon a cleere fire: when these boyle, adde vnto them of new Roses, yet greene, cut in sunder with Scizars or Sheares, foure pound; boyle them all vntill the iuice be wasted, stirring them often with a sticke: this being done, straine them and put them in an 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 Honey, and set them in the Sunne the space of three moneths, afterward straine them, and boyle the liquor strained out to the thicknesse of Honey. Otherwise, take equall parts of Honey, and of the manifold infusion of new Roses, boyle them all to the consistence of a Syrrup; looke how manie times the more double the infusion of the Roses is, by so much the Honey 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 raw Honey before it euer boyle, or hauing but lightly boyled, and put thereto some quantitie of sweet water, red Roses that are new, and newly dryed in the shadow, their white taken away, and a third part of Honey, 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 fitly prepare Honey of Roses and Rosemarie-flowers a great deale better than after anie of the former waies.

Honey of Myrtles.

Honey of Myrtles is made with a pound of the iuice of Myrtle-tree, and two pound of Honey, all boyled together vpon a small fire.

The

The honie of damaskes raisons is thus made: Take damaske raisons cleansed from their stones, steepe them foure and twentie houres in warme water, and after boyle them to perfection: when they haue thus boyled, straine them through a strainer verie strongly, and after that, boyle them againe to the thicknesse of honie. *Honie of damaske raisons.*

Mel Anacardinum is thus made; Stampe a certaine number of the fruit Anacardia, and after let them lye to steepe for the space of seuen daies in vinegar, but on the eight boile them to the consumption of the one halfe afterward straine them through a linnen cloth: the juice that is strained out, must be boyled with like quantitie of honie. *Honie of the fruit Anacardia.*

The manner of making honied water: Take one part of honie, and sixe parts of raine water, put all together in a little barrell, well pitcht and slope aboue, that so no ayre 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 turne 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 juice of quinces, in such quantitie as that there may be for euerie pound of honie, a quarter of a pound of juice of quinces. Some before they put the honie and water together into the barrell, boyle them together vpon a cleare fire, or vpon coales without smoake, they scum the honie, and boyle it to perfection, which they gather by casting an egge into it, which if it swim aboue, then the honie is sufficiently boyled, but and if it sinke, then it is not boyled ynough. *Honied water.*

The Polonians, Muscouites, and Englishmen, doe make a drinke hauing the forme of a honied water, which is farre more pleasant, and more wholesome than many mightie wines, and it is called Mede. They take one part of honie, and six parts of raine, riuer, or fountaine water, they boyle them together, and in boyling them, take off the scum very diligently, and continue the boyling 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 boyle vp, and withall they hang in the vessell a nodule or knot full of cinamome, 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 kind of honied water is verie soueraigne against quartane agues, ill dispositions of the bodie, diseases of the braine, as the falling sicknesse, apoplexie, and palsie, in which cases wine is forbidden. *A wine made of honie and water.*

The countrie men of Prouence, and the Italians, doe make marchpaines of honie and almonds after this manner: Take white honie three pound, and three whites of egges, beat all together with a woodden pestill in a bason, till it grow vnto the colour of milke: afterward set the bason 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 eat which are in a consumption, as also to procure spitting. *Marchpaines of honie.*

Chap. LXXI.

Of the markes of good Waxe, and the manner of preparing diuers sorts of Waxe.

Good Waxe must be of a verie yellow colour, smelling sweet, 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 Waxe. *The signes of good Waxe.*

Blacke

Blacke wax. Greene wax. Red wax. White wax.

Blacke Waxe is made with ashes of burnt paper; greene, by putting verdegrease vnto it; red, by putting the root of Alkanet vnto common Wax, or the powder of Cinnabrium; but white Waxe is made many waies, but for the most part, after this sort and manner: Melt Waxe 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 skellet or vessell of copper, to keepe it liquid and in heat: close thereby you shall haue one or two great barrells, made after the manner of lee-tubs, full of water newly drawne out of the well, in which you shall wet two boards that are round, flat, and halfe finger thicke, fashioned like round couers or lids of pots, and in the middest they shall be made fast to a little sticke or woodden pin in manner of a graspe, by which one may handle them: you shall dip the same (first well wet in water) in the vessell where the Waxe shall be melted, and presently after you shall pull them out full of Waxe; 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 euerie peece 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 heat 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, & by the same means also defend it from the Bees, which will flie thither from all corners to get out the honie. Otherwise, boyle the wax 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 wast it verie much: but the drying of it in the Sunne, bringeth no great losse, as you shall best find after proofe and triall made.

To make searing candle: Take two pound of new Wax, a pound of good rosen, and a quarter of a pound of turpentine; mixe them, and make searing Wax.

The end of the second Booke.

THE

THE THIRD BOOKE OF THE COVNTRIE FARME.

The Orchard, or Greene plot.

CHAP. I.

Of the differences of Orchards, or Greene plots, and the inclosing of the Fruit-Garden.

THere are three sorts of Orchards or Greene plots, the one (otherwise called an Arbour) contriued with great bankes, and this is pointed out and prouided in a field couered with green grasse, and a fountaine in the middest of it, and wrought into diuers plaine and euen plots and braunches, consisting of lofts, 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 Germanie: and, to fit a place for this manner of greene plot, it is requisite that it be cleansed from all manner of stones and weeds, not so much as the roots left vndestroyed; and for the better accomplishing hereof, there must boyling water be powred vpon such ends of roots 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 laied vpward, and afterward daunced vpon with the feet, 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 forth like small haires; and finally, it is made the sporting green plot, for Ladies and Gentlewomen to recreate their spirits in, or a place whereinto they may withdraw themselues if they would be solitarie and out of sight.

The second sort of greene plots is that which our auncient Frenchmen, who first wrote our Romane discourses and histories, haue taken and vsed for a place of pleasure fit for Princes, and was called in auncient time after the manner of a sojourning 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 windows, compassed in with goodly water ditches, fed from continuall running Springs, doth containe an inner and base Court with gardens for pleasure and fruits,

The sojourning place.
The beautifull prospect.

fruits, with vnderwoods, warrens, fishponds, and whatsoeuer goodly and beautifull thing is wont to stand about princely palaces.

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 houshold for husbandrie: such a one as we haue here resolued to furnish and set out euerie way well appointed, and in which vve are more to regard profit, joyned with a meane and moderate beautie and comelinesse, than any vnnecessarie sumptuousnesse.

The Fruit-garden.

Therefore to goe on in our designed course and intended plot, this place requireth, that next after the kitchin and flower gardens, with their appurtenances, vve make readie and trim vp a greene plot for fruit trees, containing in it as much ground as both the other gardens, and that without any manner of other alleys of diuision betwixt it and the gardens, or in the middest of it selfe, than 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 profit vnderneath, whether of hay, or any such other thing which would grow there: for the fruit tree would not haue his sustenance purloyned or kept from it, by the tilling of other plants which might be seated about it, neither doth it craue to be kept vvarme in Winter time, but onely tilled and ordered according to his seasons, because that otherwise it would yeeld no profit vnto the owner thereof.

The situation of the orchard would be vpon some hill top, or some little hill, rather than in a plaine ground: for besides that such seats haue better ayre, more pleasant and delightsome for contentment of contemplation and view, and diuers other allurements which will there offer themselues; the tops of hills are yet more apt to containe greater number of fruit trees to be planted therein, than the plaine ground possibly can: for such as stand in plaines, if they be planted any whit neere, do annoy one another vvith their shade: the other on the contrarie side (according as it riseth more and more from the foot) causing euerie tree to ouer-looke his fellow, taketh away the discommoditie or inconuenience of such ouershadowing one of another. It must also be planted somewhat more vpon the North than vpon the South quarter, that so it may minister matter of rejoycing to such as shall behold it out at the windowes in his beautie and jolitie: Indeed if it be planted vpon the South, it is more open vpon the Sunne, whose heat is verie requisite for fruit trees, but then it would not stand so faire for prospect: besides, that it vvould be offended and hurt of the dust and filth of the threshing floore vvhen the corne is threshit, if in case it should stand neere vnto it.

In any case let it not stand vpon the North-West quarter, because it is a most deadly enemie vnto all sorts of plants, but principally of flowers, which it singeth as if a fire had passed that vvay, and the cause is, for that it commeth from the Sea side, and taketh part with the North, vvhich is verie rough and sharpe, but yet not so dangerous as that North-West vvind vvhich bloweth once a yeare, chiefly in the Spring, and spoyleth the cherrie-tree-flowers and the vine more than any of the rest. Whereupon there arose this Latine verse, *Va tibi galerna, per quem sit clausa taberna.* In any case let not the ground vvhereon you plant your orchard be marshie or vvaterish, for the fruits growing vpon such grounds are not vvell relished, neither yet vvill they last long: it must likewise be inriched one yeare before that it be cast and digged, to make any nurserie there, either of seeds or stockes, and after it hath beene the second time digged and dunged, or marled, you must let it rest & 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 goodnesse thereof, it must be fat in handling, blacke in colour, and vvhich murleth easily in breaking and stirring it vvith your fingers, not being hard, clayie, chalkie, or sandie. Yet if it be so that the situation of your Farme lyeth in such a soyle as is marshie and vvaterish: for euerie

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man cannot make choice of his abiding;and it is a brauer reputation to the Husbandman to make a barren earth fruitfull, than to make a fruitfull ground pleasant: therefore (as I said) if your ground lye low, and be much subiect to wet and rottennesse, you shall trench it diuers waies, almost in the manner of a Labyrinth, cutting one trench into another, in such wise, that the water may haue a descent or falling away into some Brooke, Riuer, or other Dike, which as a Sewer may carrie away the wet, and keepe the Orchard drie: and also you shall bring from some other Grounds, Lakes,or Ponds,great store of earth,mudde,and other compas,wherewith you shall raise and heighten the bankes betweene the trenches, in such sort, that they may remaine and be farre from the danger of washing or ouerflowing of anie water: and these bankes you shall stake well with strong Oaken stakes on euerie side, and plant great store of Oziers also about them to maintain and hold vp the earth from falling. Then,as soone as you see these bankes firme, and beginning to grow to haue a greene swarth vpon them, you shall plant your fruit-stocks,of euerie seuerall kind,vpon the same,and without all doubt they wil prosper and grow there as well as in any ground whatsoeuer, as may be seene in diuers places both of this and other Kingdomes.

The inclosure or defence vnto the Orchard shall be either a hedge of Quickset, which is in truth the most pleasant and conuenient,though yet the wall be more profitable, as being more strong, and built in lesse time, which also being planted and handsomely dressed,affoordeth not much lesse pleasure than the hedge: or else if you like it better,a ditch cast about it,with a Quickset hedge set vpon the raised side thereof: but in this according as the sufficiencie and reuenues 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 gates and graunted,that the wall is the surest kind of defence, as also the strongest, most profitable, and perfected in least time.Besides, the wall,of all other fences, is most needfull for the Orchard, as well for the strength, indurance, and safe keeping of the same, as also for the great profit which commeth thereby to all maner of fruit which is planted, and plasht vp against the same,chiefly in those cold countries where the Sunne is not altogether so violent, nor so readie to ripen as in these our warmer soyles of France, for it is most certaine that by planting any daintie or tender fruit close to a wall, and spreading his braunches open against the same, which with loopes of leather,or felt, together with small nailes, may easily be done, fastning euerie principall braunch and materiall twig to the wall, it will doubtlesse put forth as early, flower, knit, and ripen, being in a cold and hard soyle, as if it were in the warmest and fertillest earth which doth best of all agree with its nature, as may be seene daily both in the cold and barren countries of Fraunce,as also in other kingdomes much more Northerly and lesse beholden to the Suns warmenesse. And herein you shall vnderstand,that the principall fruit trees which delight to be planted against a wall,are peaches,abricots,nectaryas,all sorts of sweet plumbs, cherries, oliues, almonds,and such like,for the reflection of the Sunne cannot beat or play vpon them too much, they are so infinitely in loue with the same. And in as much as the Orchard is altogether dedicated and appointed for the matter of planting, grafting, and transplanting of trees in it: we will assigne out certeine places wherein the nurcerie of seeds and the other of stockes may conueniently be appointed: which nurcerie of seeds shall be as a well furnished shop to afford new store of plants,to furnish the orchard at all assaies and times of need.

We will first sow our nurcerie of seeds on that side by which we go into the Orchard, and close vnto it the nurcerie of stockes, where shall be planted wild ones, remoued 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 kernells, and transplant and graft them after diuers waies. In those parts of the two great void places where they are sundred the one from the other with a great path, we will according to their kinds, sute out and set out great trees: and at the end of them,we will pricke out oziers,so as they may for their better growth receiue refreshment from some small brook or water course.

A brief of the which shall be spoken of in this third Booke.

CHAP.

Chap. II.

Of the seed Nurcerie, that is to say, of the planting of Trees on Pippins or Seeds.

CErtaine it is, that Trees grow and spring out of the earth, either vvithout the vvorke and industrie of man, or elle by his toyle and skill painfully imployed: of such as grow by the skill and industrie of man, some grow of seeds, that is to say, of kernells, commonly called Pippins, or of other seeds, as of Nut kernells, cherrie stones, plumme stones, &c. being thrust into the ground: othersome of shoots and small twigges, branching from the root at the foot of the Tree, having their nourishing roots, and drawing fibres from the full growne roots of the Tree, or else of themselues. Some grow of buds and blossomes, as siences: or of young braunches, or of boughes: some of the multiplying of branches, if especially the Tree be yet young and pliant: others are grafted one vpon another. We vvill first intreat of the making of them grow in the seed Nurcerie of their seeds, and so in order afterward vve vvill intreat of other meanes of making Trees to grow.

For the ordering therefore of your seed Nurcerie, and furnishing of it vvith 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 you 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 and rot vvith the earth, and so be kept in great ridges, vnto Cyder time, vvhich is in September and October. At vvhich 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 chase and vvipe them verie vvell betwixt your hands, then lay flat and square your plot or quarter, and that good and close, and make it out into borders of the bredth of foure feet or thereabout; and making paths, by casting vp the mould betwixt euerie two, to the end that they may be vved vpon the one side and the other vvithout 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 vvith the earth vvhich you haue cast vp in making of the paths or hollowed furrows betwixt the said borders, and rake them ouer afterward, that so the drosse of the Apples may be vvell broken and spred, not lying together on heapes. This is an excellent vvay for the sowing of much ground, and a great deale of seed, because if one pippin come vp of a hundred, yet the husbandmans labour is saued, and his profit sufficient: but in case where such plentie is not, but that a man must from an Apple or two get all the seed he must sow, or that by chaunce lighting of some few especiall pippins, vvhose like stockes he is desirous to be maister of, in this case you shall by no meanes bestow them into the earth thus rude and carelessly, because it is to be vnderstood that the kernell of the Apple is a pleasanter and more sweet seed than any other vvhatsoeuer, and thereby inuiceth vvormes, and such like creeping things, sooner to deuoure and eat them than any other: therefore to keepe them from that miscarriage, and to make them take soone, you shall take a common garden pot, such as you vse to plant Gillo-flowers in, and filling it vvith fine mould vvithin three fingers of the brim, lay in your seed, and then sift vpon them other fine mould till the pot be full, and so let them stand where they may receiue both Sunne and Raine till they sprout, and be growne at least halfe a foot aboue the earth: then hauing drest a piece of earth, and manured it vvell for the purpose, you shall take those young plants, together vvith the earth and all vvhich is about them, and place them orderly in the new drest ground at least tenne foot distance one from another, and these also you shall place in comely rowes, so as

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euerie eye may distinguish the seuerall alleys that passeth betweene them: Other waies there be also of sowing of pippins, as on the bankes of ditches new cast vp, or else amongst the quick-set, or in smal furrows digged and turned vp for the purpose, and such like, but yet none is so certaine as this alreadie rehearsed.

Otherwise; drie the foresaid pippins, and keepe them to the Winter following, and afterward about the later 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 vvith your rake, and throw thereupon good store of thornes and boughes verie shortly after you haue thus sowne them, that the hennes or hogges may not doe them any injurie. When the pippins are put forth of the earth, and growne for the space of a yeare, take away the thornes, and weed away all the weeds 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 growne weed, you pull not vp therewithall the little pippin and seed of the Tree. Water them if the Sommer shall fall out drie, and begin to vveed and lop them, to acquaint them with the hedgebill, and to keepe them still so bare of braunches, as that their sap may be imployed 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 remoue into the nurcerie of stockes. To cause them to shoot and put the sooner out of the earth, you must steepe their kernells in vvater or milke, for the space of two or three daies. And you are here to vnderstand, that the seed of the Mulberrie-tree doth not grow so hastily, or bring forth so good fruit as the seed of the Figge-tree.

For to sow the Elme, you must gather his seed 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 sowne in a sufficient firme ground an inch deepe, and watered often, if there fall no raine. *To sow the elme trees.*

The Bay-tree must be sowne a foot deepe in the ground, and foure seeds togegether: transplanting and remouing it a yeare after into some other place: and in like case you are to deale with all such like seeds, whether they be of Cypres trees, Myrtle trees, or others.

Chap. III.

Of plants comming of stones.

For your plants of stonie kernells, 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-kernells, than amongst the other which haue the soft kernells) Abricots, and Date-trees; you must drie the stones, as they come fresh out of their fruits, which you meane to set in the ground at such time as the Sunne is not verie sharpe, and in the shadow thereof: and see that it haue beene steeped in milke or vvater three or foure 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 forth 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 young and tender when it commeth, may preuaile against them to kill them, they not being able to resist the rigour and roughnesse of the cold and frosts. But and if for your auoyding 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 forth, without remouing of them to any other place, then set in euerie hole, three, foure, or fiue stones: and if all of them *The setting of stones.*

ſpring vp and take root, 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 pulled 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 digged verie deepe, 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 euery moneth, eſpecially in Summer when it falleth out drie, and weed 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 fruit: for otherwiſe, if you ſet them in a ſhadowed place, though it be of a good ſoyle, indeed the fruit may be faire to looke to, but vnſauourie ynough to eat. When the ſtones are ſet, and haue taken footing, and are become ſomewhat 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 new 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. Almonds. Cheſnuts. Abricots.

And as concerning particular properties belonging vnto euerie ſtone, and how it muſt be ſet, it is to be knowne, that groſſe Nuts, all manner of Peaches, wild Figges, Almonds, Cheſnuts, ſmall Abricots (but eſpecially and moſt ſingularly well the branches) becommeth free and reclaimed, being ſet of a ſtone, foreſeene that they find as good and as faire a ſoyle, 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 cold place, a foot deepe in the ground, the point downeward, euerie one a foot from another, and this in Nouember in high places, and in Ianuarie in low places.

Iuiube-tree.

The ſtone of the Iujube tree muſt be ſet after the manner and faſhion of the ſtone of the Peare-plum-tree, but it is long and ſlow in growing out of the earth.

Plum-tree.

The ſtone of the plum-tree muſt be ſet a fat ground, a foot deepe, and that in Nouember and Februarie, and they are to be remoued the ſame time of the yeare, 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 yron inſtrument to get out the kernell, but you muſt attend till it be opened, and ſet vpon it gaping. And the Pine-nuts muſt be ſteeped 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 roots.

Small Nuts. Peaches. Auberges. Great Abricots.

Small nuts and plums of all ſorts, peaches the ſmall and great, and great abricots, in whatſoeuer good ground and pleaſant ſoyle their kernells 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 young ſtockes.

The Date ſtone.

The ſtone of the Date, which bringeth forth the Date-tree, muſt be ſet the great end downeward, two cubits deepe in the earth, and in a place enriched with Goats dung, and the ſharpe ſide vpward: it deſireth to be watred daily, and that there ſhould euerie yeare be ſalt ſowne about it, and withall it muſt be remoued.

The ſeeds of Limons, Citrons, Oranges, Aſſyrian Citrons, and ſuch like, as hath bin ſaid in the ſecond Booke, muſt be prickt downe vpon beds well prepared & dunged about the moneth of March, & the ſharpeſt end downward, halfe a foot 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 foot of ſome wall, open vpon the South: and in Winter, when the time is hoarie, couer and fauour them in ſuch manner as wee haue ſpoken of in the ſecond Booke. As much may be ſaid of Pomegranat kernels, and Bay-berries, as you may vnderſtand by the ſecond Booke.

Piſtaces

Piſtaces doe require greater diligence and delight to be ſowne, as well the male as the female, in a verie fat ground and vvell eared, the backe turned to the Eaſt, and this about the firſt day of Aprill: and at the ſame time of the yeare you may graft them vpon themſelues, notwithſtanding that ſome doe graft them vpon the almond-tree. *Piſtaces.*

The peach ſtone would be ſet preſently after that the fruit is eaten, there remaining ſtill ſome ſmall quantitie of the fleſh of the peach about the ſtone: and for the longer laſting and keeping of it, it loueth to be grafted vpon the Almond-tree. *The Peach plant.*

Chap. IIII.

Of the nurcerie for ſtockes.

IF you vvould haue a beautifull and pleaſant fruit of your trees, it is not ynough that you ſhould onely ſow or ſet your ſeeds or ſtones in a good ſoyle, but it ſtandeth you as much vpon to remoue them after one yeare into another place: for this tranſlating of them doth ſo delight them, and reuiue their vigour and ſpirits, as that they yeeld more pleaſant leaues, and a better fed and liking fruit. For and if you will beſtow this fauour vpon vvild plants, you ſhall find them to become of a gentler nature, and farre more excelling beautie. Wherefore when the Trees which ſhall haue ſprung vp of ſeeds or ſtones, ſet or ſowne, 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 poſſibly may be; and if it happen that any of them be ſpoyled or broken, cut it: looke vnto it alſo, that you doe not pull it vp when the Northerne wind bloweth (for this wind is an enemie vnto new ſet plants) and ſet them againe preſently, leaſt the roots ſhould ſpend themſelues, it muſt not be in a hot, or cold vveather, nor in an exceſſiue vvind, nor in raine, but at ſuch time when it is calme and verie faire, chuſing rather a cloudie day, than when the Sunne breaketh out hot, and the Moone being in her increaſe: but and if you ſhould not haue the leiſure to remoue them ſo ſoone; or and if you would ſend or carrie them ſomewhat farre, bind them vp in their owne earth mingled vvith dung, and make it faſt thereto with vvoollen cloth or leaues. When as you take them vp, marke what part ſtandeth vpon this or that quarter, to the end that you may ſet them downe againe vpon the ſame quarter and coaſt of the heauens, for and if in remouing them you ſet them in a contrarie ſoyle and ſituation, in reſpect of the heauens, they will not thriue ſo vvell: and that is the cauſe why thoſe that buy 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 hard continually to be kept, ſeeing vve buy trees at Paris ſometimes to plant, whoſe firſt ſituation we doe not know, neither can vve learne, and yet notwithſtanding being planted, they ceaſe not to thriue and proſper. And againe, what cauſe is there of any ſuch ceremonie, ſeeing the Sunne vvhich is the nurſing father of all plants, doth viſit euerie day all the ſides of the Tree, and that the ground wherein it is planted, is no leſſe nouriſhing vpon the one ſide than vpon the other? Theſe things weighed, about the third 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 nurcerie, cutting off the end and beards of all their roots, and which may be in any place about their ſlender little ſtockes, 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 furrowes muſt be made according to the goodneſſe 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 watrie and marshie place, of three feet onely. Some plants, as the Ash and Oliue tree, grow better in the vpper face and top of the earth, than in the depth and lower parts of the same. Set in order your young 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 paths to goe about vveeding with ease, and passe betwixt euerie two furrows. When thus your wildings are set, you must cut off their stockes close by the earth, and fill vp the paths with dung, without euer going about to hide or couer the plants in the earth, and so soone as they grow, they must be well wed round about, and cleansed from vveeds, and vnderdigged, or lightly digged sometimes in Sommer round about, not comming ouer neere the roots in any case: and they must be vvatered also on euenings, when it hath beene a verie hot day, and when they haue put forth siences for one or two yeares, then going ouer them all, leaue not moe than one sience to euerie plant, and let it be the sleekest, best liking, tallest, and comelliest of all the rest, cutting the other off close by the stocke. As these siences shall grow on, so still picke off cleane from them the small superfluous wood growing vpon them vpward, and euen close also vnto the stocke: and this must be done in March, or Aprill, and then must some small prop or stay be prickt downe at the foot of euerie 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 hardnesse 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 remoue 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 growne vp of seeds for two or three yeares vntaken vp, you must furrow them as hath already bin said, but with deeper digged furrows, and then you shall not breake the roots so much: and it will be fit and conuenient to cut off their branches vpward, as occasion shall require.

Fruits growing of grafts doe alwaies keepe a better form and fashion than the other comming of plants.

There are found kernels of peares or garden apples that haue beene gathered from trees that vvere sometimes wild ones, or growne vpon trees, which haue alreadie bin oftentimes grafted, vvhich bring forth verie streight trees, and also of comely wood, as if they had beene grafts from the beginning, not hauing any prickes or thornes, to argue them euer to haue beene wild. Such young trees if you will remoue them as they are, or plant them out of their nurserie, without other manner of grafting them, they vvill 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 kind, and withall much the greater: but that which groweth of a kernell doth chaunge as oft as the tree is changed which beareth it. And besides you must note, that although all trees which haue a strong fruit, grow better of kernels than of boughs; yet so it is, that a late seed doth bring forth but an ill-fauoured plant, especially the said seed being put besides his familiar and well pleasing ground.

Fruit comming of a seed plant.

Chap. V.

Of Plants, Siences, and Shoots.

Plants of cherrie trees vpon siences.

THe little siences of Cherrie-trees growne thicke with hairie roots, and those also which grow vp from the roots of the great Cherrie-trees, being remoued, doe grow better and sooner than vpon stones: but then they must be taken away and planted whiles they are young, as whiles they be but two or three yeares old: for when they are growne thicke they thriue not so well: againe, if you stay till they be growne grosse, in remouing of them you must then lop them, and strip them cleane of their braunches, setting their

great

great end in the earth the depth of a foot, and after treading downe the earth, and pricking downe withall at the foot of euerie plant a little ſtake to hold them faſt, and to let the vvinds and vvhatſoeuer other thing from harming them. But eſpecially you muſt ſee that you cut not ſiences at any other time than in Winter: for that moiſture and cooleneſſe (during the time of Winter eſpecially) is a meanes to conſerue and keepe them, and thereupon alſo they grow and bring forth their fruit the better afterward.

The Mulberrie tree groweth after the ſame manner of little ſiences, 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 Sommer it be watered diligently. *The Mulberrie-tree.*

Filberts in like manner doe grow of ſmal ſhoots, which grow forth of the roots of good Filbert-trees that are well rooted: theſe ſiences muſt not haue their braunches cut off when they are remoued, except they be growne great and ful of branches: but three yeares after that they are remoued, if they doe not proſper and grow faire, you muſt cut them cloſe by the ground, and they will put forth a buſh of ſtreight ſiences, verie 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 Filberts.*

The ſiences 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 drawne ouer with dung mixt with aſhes, the head and the foot, and after laid in the earth, as they vvere vpon the Tree, the lower end more downeward 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 generall obſeruation in tranſplanting of all manner of ſiences. *Plants of the Oliue-tree.*

The ſiences of a vvell ſtringed root of a good plum-tree not grafted, doe yeeld, being tranſplanted, a fruit no vvhit inferiour vnto that of the chiefe and principall plum-trees, from which you haue taken them. But and if the old plum-trees be grafted, you muſt alſo take grafts and graft them in other plum-trees, or wild cherrie-trees, or vpon foure Cherrie-Trees, and not to vngraft ſiences to tranſplant them. *Plants of Plumme-trees.*

Garden plummes and hartlike cherries doe not grow naturally, being planted of ſiences, but deſire rather to be grafted of grafts. *French plums.*

Chap. VI.

Of pricking downe or faſtening in the earth of ſmall or great braunches.

SPrigs or plants 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 ſoyle, and of this ſort are fig-trees, quince-trees, and pomegranat-trees.

When a man is diſpoſed to pricke downe ſome ſmall ſprig of a Mulberrie, Figge, Quince, Cornell, Pomegranat, and Plum-tree, or many ſprigs of all theſe kinds, and their diuers ſorts, he muſt cut them off betwixt the firſt of Nouember, and the later end of December, or a little after: and he muſt ſee that theſe his ſprigs be faire and well fauoured ones, hauing a ſound barke, full of little eyes, and as thicke as a ſticke, or thicker. He muſt chuſe ſuch as be ſtreight and full of moyſture, conſiſting of one onely rodd, and of young vvood, as of ſome three or foure yeares old, and that they haue alſo as much old vvood as they haue young: and they muſt be ſharpened like a ſtake for the value of the length of halfe a foot, but the bare muſt *The manner of pricking downe of ſprigs of Mulberrie, Fig, Quince, Pomegranate, and Plumme-trees.*

be left on vpon one ſide, that their end which you meane to put into the ground, muſt be writhen and ſteept in vvater: or elſe you muſt cleaue it a little in quarters, and make it ſtand vvide open and gape, vvith a beane in the cleft; or elſe ſome peaſe or little ſmall ſtone put in the middeſt thereof, and ſo pricke it downe in the earth a foot deepe: or eiſe ſet it in a little boxe of peaſe full of water, and ſo put them all into the ground together. The braunches 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 root. Obſerue and marke wel the place, nature of the ſoyle, and aſpect or ſcituation of the tree from whence you haue gathered the branch, to pricke it downe on the ſame ſide, the like ſoyle and the ſame ſcituation, 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 alwaies low: the braunches being ſuch, they will take the better, and not breake in the gathering.

To plant the fig tree after the manner of the Genowais.

To plant the Figge-tree after the manner of the Genowais, which ſhall beare fruit within three yeares after (and it may be thus planted all Sommer time) there muſt be taken a Figge-tree branch that hath borne fruit two or three yeares, 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 top of it may abide aboue the ground with three or foure of the little eyes, and be couered with ſtraw for ſixe daies, and watered euerie one of thoſe ſixe daies: afterward let it be vncouered, becauſe by this time it will haue put forth, and in the end of the yeare, towards the moneth of Februarie, you muſt cut off that which is put forth cloſe by the earth, and after that it will ſhoot ſo mightily as that it will beare fruit the ſecond yeare.

Chap. VII.

Of the manner of making Siences for to plant.

For to make Siences of diuers ſorts, which you may plant and ſet according as you ſhall haue need, cut in the Winter ſome great tree, if it begin to be yellow, or vvaxe bleake and pale, and whereof you deſire to haue increaſe: ſaw off ſome ſtockes of the thickeſt braunches 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 endwaies, 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 foot one from another: couer them well and vvater them in Sommer if there be need, and weed them verie well: in ſpace of time they will put forth ſiences, which you may remoue when they haue taken root ſome two or three yeares: but and if they haue not as then any roots, ſet them good and deepe into good earth, that ſo you may cauſe their roots to grow. And theſe ſiences will put forth other which will likewiſe ſerue. Marke it, that all trees that put forth braunches, if you cut them in Winter, they will ſhoot out aboundance of ſiences, all which will be good to be planted.

Plants of gooſeberrie, redcorant and barberie trees.

The barberie, redde corant, and gooſe-berrie-trees, are planted likewiſe in Winter vpon ſiences that come out of their roots, and they muſt haue ſome hairy ſtrings: but and if they haue no roots, there muſt ſome be procured to grow out of them.

Chap.

Chap. VIII.

Of planting of ſhoots of a yeares growth.

PRopagating or planting of Trees is fitteſt for ſuch as haue beene planted of ſiences, and ſuch as doe put forth ſiences and ſmall ſhoots from their roots: for this cauſeth them to beare a more beautifull fruit, and more aboundantly, 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 wont to be grafted vpon wild ones, would be propagated or planted: for in as much as the wild 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 wild Cherrie-tree, or one that beareth verie ſowre Cherries, ſuch a Cherrie-tree would not continue and laſt long, neither indeed will it beare anie ſweet Cherries, if it be not planted a yeare or two after that it is grafted: and the reaſon hereof is, becauſe the wild 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 forth and nouriſh ſweet Cherries.

To plant foure manner of waies.

There are foure ſorts of planting or propagating: as in laying of ſhoots or little branches, whiles they are yet tender, in ſome pit made at their foot, as ſhall be ſaid hereafter: 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 young planted ſiences, or little grafts, muſt be propagated in the beginning of Winter a foot deepe in the earth, and good manure mingled amongſt the earth, which you ſhall caſt forth of the pit wherein you meane to propagate it, to tumble in vpon it againe. In like manner the ſuperfluous ſiences muſt be cut cloſe by the earth, when as they grow about ſome ſpeciall impe which wee meane to propagate, for they would doe nothing but rot.

For to propagate, you muſt digge the earth round about the tree, that ſo the roots may be in a manner halfe layd bare; afterward draw into length the pit on that ſide where you meane to propagate, and according as you perceiue that the roots will be beſt able to yeeld and be gouerned in the ſame pit, ſo vſe them, and that with all gentleneſſe, and ſtop cloſe your ſience in ſuch ſort, as that the wreath, which is in the place where it was grafted, may be a little lower than the ſience 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 ſomewhat ſtiffe to lay in the pit, then you may cut the ſtocke almoſt to the middeſt betwixt the root and the wrythen place, and ſo with gentle handling of it, to bow downe into the pit the wood which the grafts haue put forth, and that in as round a compaſſe as you can, keeping you from breaking of it; afterward, lay ouer the cut with gummed wax, or with grauell and ſand.

If there be manie ſiences and impes in the plant which you would encreaſe, 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 roots againe with the earth that was about them before, and which you had taken away, and then to cut all the broken ſiences a little vnder where they are broken, and to leaue them ſo vntill another yeare, when they ſhall haue put forth new ſhoots, which the Winter following you may propagate: but and if of all thoſe ſiences there remaine ſome one not broken, goe forward and propagate it, cutting cloſe by the

ground

ground ſome of the wrythen place, and of thoſe ſhoots which are not broken. In propagating of them, ſee that you lay good quantitie of the ſiences of your branches into the pit, couch them there verie 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 ſaid ſiences doe riſe againe after you haue ſo troden them downe. This being done, ſet right vp all the ends which ſhall come out of the earth, and that ſo high as you can, and ſo let them reſt for three or foure yeare before you furrow them, euen vntill the roots haue taken earth, and be alreadie become full of hairie ſtrings: you muſt pricke ſtickes about them, for to handſome them, taking heed that you breake them not. Three or foure yeares 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 forth hairie roots, together with the ſtocke, that is aboue the wrythen 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 grafts be growne 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 ſiences, 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 ſiences, of which you may make other free and reclaimed trees propagating them, and taking them vp at the end of three or foure yeares. No ſiences are propagated, but ſuch as haue no roots of their owne; for and if they had roots by themſelues, then they ſhould be taken vp and planted againe with the ſpade, and not propagated.

Siences fit for propagation.

Chap. IX.

Of grafting young Plants, and other Trees of diuers ſorts, diuers wayes and at diuers times.

ALthough the tranſplanting and propagating of trees maketh them and their fruit both verie faire and great, yet grafting doth excell both them in this kind; for by grafting, not onely wild trees are flattered and ouercome; and thoſe which were barren, made fruitfull; thoſe of an ill taſt, become delicate; the late bearing, bringing forth an early fruit; and thoſe which were early, to be late; but alſo the fruit growing thereby, are fairer and better fed: adde further, that grafting doth oftentimes bring forth and beget trees and fruits of great admiration; as we ſee in Apples, Peares, and manie other fruits, which doe alter both in colour and taſt by the skill and cunning ſhewed in grafting. Furthermore it cauſeth, that not only one kind is changed into another, and that diuers fruits doe agree together, and that vpon one tree; but that ſtrange and forraine trees doe come vnto vs, and ours are conueyed vnto other Countries.

There are fiue principall ſorts 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, vpon a ſtock that is clouen; and this muſt be vſed in yong trees, for old ones doe not eaſily admit anie 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 faſtened 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

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in his proper and fit place. Before we goe about to graft anie thing, we must consider whether the ground or countrey be fit for Pippins, or stones, and what trees are best laden there.

The best is to graft the same kinds together, although grafts and buds may take as well in trees of diuers kinds, but then such grafts 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 toward the other, as and if it were in trees that are paires, or of like sort: Adde hereunto, that the fruit doth retaine and follow the nature of the tree whereupon it shall be grafted, rather than the graft, and so, after a sort, becommeth degenerate and estranged from his owne nature: which maketh me, that I regard not the grafts which are wont to be made vpon Elmes, for the fruit that groweth thereon, doth keepe the tast and sauour of the Elme, which is not verie toothsome: and yet I set lesse by the grafts that are grafted vpon the Colewort stalke, or the white Thorne, or Gooseberrie tree, Vine branches, Rose trees, or such like: for besides that such grafts are nothing durable (as being made vpon a subiect of a more feeble and vnfirme nature than 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 tast, or else verie vnsauorie in the eating. Notwithstanding, although the hardest and most solide young plants be to be preferred in the matter of grafting: yet so it is, that if you graft in young stockes 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 anie profit arising: and such grafts are not dealt in by anie but by Gardiners, which either affect curiositie or deceit, as desiring to haue grafts often, rather than for anie thing else. It were better therefore to graft in trees of the same kind, or else if you should graft in trees of diuers kind, yet to chuse 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 commaunded by, notwithstanding that it is the feeder of the other. And in anie case you must graft the trees that beare timely fruits vpon others that beare timely fruit, and the late fruits vpon the late fruits.

And although that by the assistance and helpe of grafting, men bring in infinite numbers of monstrous things as well in trees as in fruits, mingling diuers kinds together, yet we must not thinke, that we may graft all sorts of grafts indifferently vpon all sorts of trees: for neither will the Oake admit the Peare tree, nor the Figge tree or Oliue tree: and on the other side, the Pine tree, Firre tree, Cypresse tree, or generally anie other kind of tree that yeeldeth Gumme, Oyle, Liquors, Pitch, or Rosin, will not admit the coniunction or grafting of anie tree vpon them, as *Plutarch* teacheth in his second booke of Table-talke, because they are fat, and cast out an oylie humor, which (as all other sorts of oyles) is enemie to all manner of plants: insomuch, as that there is no readier a meanes to kill such a tree as you would haue to die, as likewise Bees, than to annoint them with oyle: adde further, that the trees which yeeld the Perrosine, haue so thinne a barke, as that they cannot procure anie firme or fast footing or meanes to receiue the sappe, 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, doe not beget or beare children, because that spending the greatest part of their nourishment in the grossenesse of their bodie, they leaue no profitable superfluitie to make seed of; in like sort, trees which drop Pitch and Rosin, spending all their substance and nourishment about the making of themselues great and thick, they accordingly grow tall and thicke, but they beare no fruit at all, or else but a verie little, and that late in the yeare before it come to his full ripenesse: wherefore it is no shame for a stranger, not to be able to liue there, where the home-bred is scarce able to feed and maintaine himselfe. Trees that haue a verie hard and solide wood, as Box and such other, or which haue a verie tender barke, are not fit for grafting: for the one by

reason

reason of their great tendernesse, cannot hold the graft fast and close ynough, and the other through their great hardnesse doe wring and choake 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 enclining vnto coldnesse, or otherwise, especially Hart-Cherrie-trees, Peare-trees, and such as beare early fruit. As for Appie-trees and Medlar-trees, it is better to stay till from the end of Ianuarie vnto the beginning of March, at such time as they begin to bud, for they are not so forward as the other: And at the same time also it will be good to graft the thicke-growne young plants, betwixt the barke and the wood, with late grafts, or such as haue beene kept in the ground. All moneths 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 said, at such time as the sappe riseth vp into the trees, and they begin to bud, for then the grafts doe grow and take a great deale better. You may graft likewise in Aprill and May, if the grafts be full of little eyelets, 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 countrey and qualitie of the Region; for in a cold Countrey 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 day 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 drie, will notwithstanding be grafted verie early in the yeare.

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 than in the old of the Moone, for the Moone is the Mistresse of sappes, as of all other iuices, marrowes, and humours, or moist things; which sappes runne betwixt the plant and the graft, and bind the one to the other, being of more force and power in the new of the Moone than in the old: by the like reason there is a precept to be obserued and kept in the matter of grafting, forbidding to graft, the wind blowing at South, because such winds are sharpe and drying. On the contrarie, shoots 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 sappe drunke in with setled abode, and 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 we trie it daily by experience, that the gathering and grafting of grafts may be done at any time of the Moone, as we will declare hereafter.

Some hold them for the best daies to graft in, which are the next three or foure daies before and after the increase of the new Moone: but their reason taken from the sap binding, and ioyning together 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 wild stocke, hath more hold, and is more durable than that which is done vpon the reclaimed tree: but the fruit of the reclaimed tree is of a better taste, as likewise the fruit 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 verie apparant.

To graft vpon a wild stock.

To graft in the barke. It is vsed to graft in the barke 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 Februarie, 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 ioyning together of the one to the other, and so hinder it.

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It is vſuall to graft in the bud in the Summer time, from about the end of May vntill Auguſt, as being the time when the trees are ſtrong and luſtie, and full of ſappe and leaues, as in Iune and Iuly: that is to ſay, in a hot Countrey, from the middeſt of Iune vnto the middeſt of Iuly; but in cold Countries, vnto the middeſt of Auguſt, after ſome ſmall ſhowers of raine. And if the Summer be ſo exceedingly drie, as that ſome trees doe detaine and keepe backe their ſappe, then you muſt wait till that it be returned, and then to graft thereupon ſo ſoone as the grafts are gathered, without hauing anie 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 fruit 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 the Scutcheon, or Bud.*

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, doe put away the waſt and ſpoyle 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 qualitie. Againe, the time and ſeaſon muſt be conſidered whether it be forward, or backward; for the ſeaſons are not in all yeares gouerned and carried by an vnchangeable and vnvariable line and meaſure, for either they are more forward or backward, and participate oftentimes one of anothers qualitie. 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 Cleft.*

As concerning the particular time of grafting, it is better to graft at the euening than in the morning, and neerer vnto the roots than vnto the boughs, becauſe by how much lower the graft is ſet, by ſo much the greater ſtrength and force it receiueth from the moiſture of the earth. *To graft in the euening.*

The furniture and tooles wherewith a grafter ſhould 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 ioyne and tye vpon the lute or earth before ſpoken of, that ſo they may keepe both it and the graft faſt: and Oziers to tie againe vpon the barkes, to keepe them firme and faſt: gummed Wax to dreſſe and couer the ends and toppes of the grafts newly cut, that ſo the raine or cold may not hurt them, neither yet the ſappe, riſing from below, be conſtrained to returne againe vnto the ſhoots: a Hand-ſaw or little Saw to ſaw off the ſtocke of the Plant: a little Knife or Pen-knife 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 ſappe: 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 anie need to be made, which muſt be alwayes 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 Box, or of ſome other hard and ſmooth Wood, or of Steele, or of verie hard Iron, that ſo they may craue leſſe labor in often making of them ſharpe, and they muſt ſerue to ſet wider the cleft of the Plant: a little Hand-bill, to ſet the Plant at more libertie, by cutting off ſome of his ſuperfluous boughes, hauing a handle or helme of Iuorie, or Box, or Braſill, or ſome other Wood which is verie hard. *Grafting tooles.*

Trouble not your ſelfe with maruelling at them who graft their trees ſo ſoone as they haue planted them, or very ſhortly after: for the yong plant which can attract & draw but weakely and at hand any ſubſtance for it ſelfe, will hardly beſtirre it ſelfe in ſuch ſtrong manner 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 ynough to be taken vp from out of his place, and to be remoued to another, without heaping vpon it this new or double charge; and therefore it would not be till a yeare after that it hath been

transf-

transplanted, and then the next yeare it will beare fruit; for it neuer thriues well of his grafting, if it thriue not the first yeare: and when as it hath sped thus ilfauouredly, it will be best to cut it off, and graft it againe, but lower.

Chap. X.

How to chuse, gather, and cut Grafts, to graft in the cleft, stocke, and rind.

YOu must chuse your Grafts of shoots that are a yeare old or two at the most (especially if you would graft them vpon old trees) which are verie new, and so thicke as ones little finger, full of sappe, hauing grosse and thicke-set eyelets, one of them being neere vnto another, for else they will not beare fruit so plentifully: They must also take some part with the old wood, that is to say, part of that which was a sience the yeare before, and part of the new, that is to say, of the present yeare, so that it must be a piece consisting of two seuerall yeares: 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 sappe, and taken from that side of the tree which standeth vpon the South, for the East is not so meet and conuenient for vs in this cold Countrey. They must also be grafted in the same situation and goodnesse of soyle 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 Countrey into a cold. Notwithstanding, we daily perceiue, that such ceremonies are of small effect, seeing that the Sunne, which is the Nurse-father, visiteth euerie 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 flower, especially if the trees whence they be gathered be timely fruit, as Cherry-trees, Plum-trees, Medlar-trees, Almond-trees, Peach-trees, and such like: but the time to gather them, is about the foure and twentieth of December, and not sooner, for then the trees are full and well stored of a mild and sweet humour. But and if you should be constrained to gather them sooner, whether it be vpon occasion to carrie them from one Countrey 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 auncient 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 manner of daies they may be gathered and grafted, in what quarter soeuer the Moone is found in, as well for Fruits of stones, which are more difficult to graft, as also for those of Seeds, or Pippins, which are more easie.

To keepe grafts. If you purpose to keepe them after they be gathered, especially such as you mind to graft in the barke (for such Grafts may be gathered without eyelets about the moneth of October) sticke them downe in the ground at the foot of a tree, lay them in a pit of halfe a foot depth, couer them well with earth, marking the place so, as that you may be sure to find 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 ends in a Turnep that is new gathered, for by this meanes their naturall iuice and humor 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 wind and force of the Sunne: or else shut them close betwixt two Canes or

Reedes,

Reedes, putting them thereupon in honey. Some, the better to keepe them, lay them betwixt two Tyles, neere vnto some Riuer, and couered well with earth. If they be sent you from afarre, looke that you goe not about to graft them, before you haue first steeped 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 sort, as that there be some of the old wood vnder one of the old eyelets of the graft; and so also, as this eyelet or little eye may be behind the graft, when it shall be set out of the cleft of the plant: but and if this eyelet or little eye be verie small, then it were better to cut it away. You may make of one long graffe two or three trunchions, of which also you may at anie time make verie good grafts, and so let goe that other with partie woods, beginning at the greatest eyelet 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 vpward 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 ioyne 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 onely that at the ends they must be verie flat. And further, if the same incision be not made for the taking downe and diminishing of anie moe than one side, it will be better than and if it should be so ordered also on the other side, and cut byas, 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 of hart-Cherrie-trees and Plum-trees.*

In cutting your graft, you must looke well, that you raise not the vttermost barke from the wood, and that withall, you leaue it thicker than that which is on the other edge within.

Chap. XI.

Of the preparing of the young Plant whereon you meane to graft.

NOw when you haue chosen your Graft, you must likewise make choice of your Plant: which, that it may be a faire one, must be right and streight, round, not wreathen, of a beautifull colour, a sound, neat, and smooth barke, without knots, verie flourishing and moist, and of a tree that hath borne fruit. It must also enioy the like good soyle 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 sience may take the more easier footing and kinder nourishment there. And if in case the Plant were wreathen, ioyne the graft cunningly vnto it, and be sure, that in fitting of it you make them both ioyne 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 Saw. Some say, that a Saw 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 skinne or barke, which groweth and swelleth vp from the foot of the tree, is that which coupleth it selfe vnto the graft, worketh all, and by it selfe encreaseth, making a bodie of the said foot; not that the sawed

wood doth ioyne it ſelfe with the ſaid graft, but abideth dead. If it be of the thickneſſe of a finger, or thereabout, you muſt cut it to the length of a foot, or halfe a foot, from the earth, byas-wiſe, like the faſhion of a Goats foot, for to cleaue it and ſet therein onely one graft.

If it be as thicke as a cudgell, cut the ſtocke round with a Saw vp on high, a foot 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 foot high from the ground, for to cleaue it and ſet therein three grafts, two in a cleft, and one betwixt the barke and the wood, and that vpon the ſide that hath the moſt roome.

If it be as thicke as a legge, or more, cut it foure or fiue foot high from the ground, and cleaue it croſſe, and ſet therein foure 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 ſappe ſhall be vp, for the wood of ſuch great plants doth pinch and wrinch 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 Saw-knife, or with ſome other thing: then make it plaine with a knife that is cleane, and not infected with anie euill ſmell; and againe make it cleane againe the ſecond time, that ſo it may not be infected anie manner of way with the yron, becauſe the ſappe of the tree may be corrupted by it: then chuſe out the beſt place in all the ſtocke to faſten your graft vnto, without anie 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 that the wind ſtandeth, at ſuch time as they goe about to graft it. It is true, that and if the wind ſhould proue great, and withall at North-eaſt, that then you muſt turne your backe vpon it, and ſtand betwixt the wind 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 ſorts of plants, as alſo fruits, of what condition ſoeuer they be, but chiefely when they are bloſſomed.

Before you make wide the cleft with your wedge, bind and tie with two or three turnes about with a wickar, drawne verie ſtrait, your tree foot vpon the place where you intend to make your cleft, that ſo your tree foot may not cleaue too farre: which is oftentimes the cauſe that grafts take not, the cleft being ſo open, that it cannot poſſibly 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 foot doe thereupon alſo periſh: but this happeneth oftest in Plum-tree ſtocks and branches of trees, becauſe they are more ſubiect to cleaue thus than anie of the other ſorts. Great trees, and ſuch as yet goe beyond the fore-named meaſures, cannot be grafted by a cleft in the ſtocke, but verie well in the branches, as wee 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 anie ſappe, you muſt cut their ſtockes or armes: and after two or three yeares, when they haue put forth new ſiences, graft the beſt, and cut away the feeble and ſtarued ones. And afterward, when the grafts haue put forth verie well, you muſt ſtrengthen and vnderprop them, or elſe wrap them one within another, and tie them with wood amongſt, for feare that the wind ſhould breake them: or elſe if it be a good and well reclaimed tree, let new ſiences grow out of it. And this thing wee ſee much practiſed in Normandie, Bretaigne, and other Countries, where they eſteeme of Apples and Peares to make Cyder of.

CHAP.

Chap. XII.

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 exceed theſe in greatneſſe. It is true, that in as much 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 bodie, as we ſee to be practiſed in great Apple-trees and wild Peare-trees, and as we haue alreadie declared here before. *To graft in the cleft.*

To graft in the cleft, you muſt make choice of a graft that is full of ſappe and iuice, but it muſt not be till from after Ianuarie vnto March: and you muſt not thus graft in anie tree that is alreadie budded, becauſe a great part of the iuice and ſappe would be alreadie 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 tenne or twelue daies before: for otherwiſe, if you graft it new gathered, it will not be able eaſily to incorporate it ſelfe with the bodie 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 ſtock to the riſing vp of the ſappe, which it ſhould communicate vnto the graft for the making of it to put forth: and whereas this dried part will fall a crumbling and breaking, through his rottenneſſe, it will cauſe to remaine a cauitie and hollow or void 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 tyed 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 been tranſplanted and remoued 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 ſappe and iuice.

When you are minded to graft manie 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 ſtocke ſhall be forced wider on the one ſide than on the other. You muſt likewiſe foreſee, that the grafts be of one length, or not much ſquaring; and it is ynough if they haue three or foure eyelets without the wrench.

When the plant is once ſawed and lopped of all his ſmall ſiences and ſhoots round about, as alſo emptied of all his branches, if it haue manie, 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 edge-toole that is very ſharpe, cleaue it quite through the middeſt in gentle and ſoft ſort, firſt tying the ſtocke verie 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 hand wherewith you held your tree, put in your wedge of Box, 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 too much from the wood, then cleaue it downe lower, and ſet your grafts in, and looke that their inciſion be fit and verie iuſtly anſwering the cleft, and that the two ſappes (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 anie *The ſappes of the graft and ſtock muſt be ſet one iuſt and euen with the other.*

anie 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 gluing of their ioints together. You muſt likewiſe beware not to make your cleft ouerthwart the pith, but ſomewhat aſide.

The barke of the Plant being thicker than that of the graft, you muſt ſet the graft ſo much the more outwardly in the cleft, that ſo the two ſappes may in anie caſe be ioyned and ſet right the one with the other: but the rind of the plant muſt be ſomewhat more out than 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 heed, not to ouer-cleaue the ſtocks of your trees: but before you widen the cleft with your wedges, bind and goe about the ſtocke with two or three turnes, and that with an Ozier cloſe drawne together vnderneath the ſame place where you would haue your cleft to end, that ſo your ſtocke cleaue not too farre, which is a verie vſuall cauſe of the miſcarrying of grafts, in as much as hereby the cleft ſtandeth ſo wide and open, as that it cannot be ſhut, and ſo not grow together againe, but in the meane time ſpendeth it ſelfe, and breatheth out all his life in that place, which is the cauſe that the ſtocke and the graft are likewiſe ſpilt: and this falleth out moſt oft in Plum-trees and branches of trees. You ſhall alſo be verie carefull to ioyne together the rindes of your grafts and the plants, that ſo nothing may continue open, to the end that the wind, moiſture of the clay, or raine, running vpon the grafted place, may not get in. When the plant cleaueth verie ſtreight, there is not anie danger or hardneſſe in ſloping downe the graft, if you leaue it ſomewhat vneuen or rough in ſome places, that ſo the ſappes both of the one and other may the better grow and be glued together.

When your grafts are once well ioyned vnto your plants, draw out your wedges verie ſoftly, leaſt you diſplace them againe. You may leaue there within the cleft ſome ſmall end of a wedge of greene wood, cutting it verie cloſe with the head of the ſtocke: or elſe ſo ſoone 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 together the ſappes of the two ſubſtances. Otherſome ſprinkle into it Sugar, or powder of Cinnamon, or ſome other ſuch ſpice, or ſome ſweet ſmelling liquor, and withall dippe the ends of the grafts in honey, or in ſome other ſweet and pleaſant liquor, hoping that by this meanes the fruits of the trees will retaine the taſt thereof. But howſoeuer it is, couer the cleft of the grafting all about with grauell or ſand heaped on like a cauſey: or elſe with gummed waxe, which is better to couer 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 wind nor raine may enter or get in: and you ſhall couer it ouer with Moſſe, or Rye ſtraw, or Barke, or the thinne rinde of the Elme, prepared with a little earth, and wreaths of old Woollen clothes, or the barke of Willow, and tie them on verie ſtrait with ſmall Oziers; but in binding them, take heed that the wreaths 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 ſaid clefts with gummed waxe: and for want of both theſe, mingle ſmall hay and the earth of the place where you graft in manner 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 byas 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 manner: Make a cleft in the ſtock of the plant, not direct, but byas, and that ſmooth and euen, not rough; then apply and make faſt thereunto the graft, with all his barke on, and anſwering vnto 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, ſticke downe, neere vnto it, ſome pole of wood, for to ſtrengthen and beare it ſtedfaſt.

They

They are greatly to be blamed for their fault committed, who hauing faire wild trees or others (the fruit thereof displeasing them) doe cut them verie low, hauing faire branches aboue, and a bodie of the thicknesse of a mans legge, and there graft them, when as fiue or sixe yeares will scarce couer the wound that they haue made by such their kind of grafting: whereas they might with as much ease haue grafted vpon the branches of the same, and then they had not beene aboue a finger thicke, and would haue growne better, and brought more profit; because that and if you haue foure branches, you may make as manie grafts thereof, and these will beare fruit the second yeare.

Chap. XIII.

Of grafting in the ends of branches.

FOr to graft at the end of such branches as haue goodly new wood, and great siences on high, although the tree haue beene grafted before, and that it be as yet not throughly growne, take grafts of what sort of tree you will, and cut some of the siences off from the high parts of the tree where you mind to graft: and if the grafts should be thicker than the siences, then graft them after the manner of the Goats foot, as hath beene said alreadie of small Plants. And if the siences be of the same bignesse with your grafts, then cut them betweene the old and new wood, or a little higher or lower, and cleaue them a little, and cut the graft of the like thicknesse to the sience 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 thicknesse: 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 barkes of the branch. And for these grafts, it is ynough if euerie one of them haue one good eyelet or two aboue the wreathing; for to leaue them anie longer, would not be good: and you must wreath and wrap them in earth and mosse, and couer it ouer againe with Woollen clothes, and tye them vnto the same verie strongly, as hath beene said.

Also by this meanes you may procure, that one tree shall bring forth diuers fruits, so that they be not such as the situation of the Countrey and qualitie of the Ayre doe refuse and reiect: as I haue seene sometimes at Padua, in the Garden of *Messire Gabriel*, where one stalke of a tree hath borne fruits of diuers sorts. And there is nothing that should hinder or let vs in this Countrey from doing the like, if it be not (perhaps) that in some places the fauourable furtherance and mildnesse of the ayre is not so correspondent and answerable.

Moreouer, if you will graft little Plants in this manner, see that they be of the same thicknesse of the grafts, and graft them neere vnto the earth, as some three fingers off, or thereabouts.

This manner of grafting at the ends of branches, must be done in trees whose branches haue beene formerly cut off, by reason either of some great want, or else too great aboundance of sappe: and that there be put forth of their stocke some new shoots, which three or foure yeares after may be grafted after the manner wee haue spoken of. Thus *Columella* teacheth vs to graft the Oliue-tree vpon the Figge-tree.

Chap. XIIII.

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 ſappe, as about the end of Februarie, and after vntill Aprill, for then the barke parteth better from the wood: and chiefely this manner of grafting is vſed in thicke plants, 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 Figge-trees, Plumme-trees, Peare-trees, and Cheſnut-trees. The grafts that are thus to be grafted, muſt be gathered and kept long before, as wee haue alreadie ſaid, leaſt peraduenture wee ſhould not meet 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 anie great length or thickneſſe, but the barke muſt be taken away a little at the end of them, and faſhioned after the manner of the head of a ſpeare, and as thicke on the one ſide as on the other: afterward the ſtocke muſt be verie well cleanſed, to take away the roughneſſe and vneuenneſſe 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 Scizars of Bone, or Iuorie, deepe ynough betwixt the barke and the wood of the plant, and ſo much, as that when it ſhall be drawne out, the cut and fitted end 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 manie grafts about your ſtocke, according as the thickneſſe of it will beare. After this manner are Abricots grafted, and Apple-trees, Almond-trees, Peach-trees, ſmall Peach-trees, Figge-trees, Peare-Plum-trees, Cheſnut-trees, Peare-trees, and young and little Plum-trees, being the thickneſſe of a little finger, and the thickneſſe 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.

Chap. XV.

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 verie 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 ſappe, as the Figge-tree, Oliue-tree, ſweet Quince-tree, baſtard Peach-tree, Abricot-tree, Iuiube-tree, ſowre Cherry-tree, Cherry-tree, and Cheſnut-tree, and not at anie other time, than 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 grafts are 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 that is full of eyelets, from whence cut with the point of a knife that is very ſharpe, a piece of barke faſhioned

fashioned like a Flute, at the least three fingers and a halfe long, having one eyelet sound and entire. Then doe as much vpon some braunch of that Tree vvhereupon you meane to graft the same, in such sort, as that the barke vvhich 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 vvhich was cut downe from the place where the graft grew, and it must likewise haue one sound and intire eyelet 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 aunswer and fit the window, whereout the barke was taken, and that in such sort, as that the eyelet in the barke to be grafted, may aunswer justly vnto the knob which remaineth sound and vndeminished in the vvood, and that this knob goe into the eyelet, of the pipe-like barke, which you are about to graft. By this meanes all will agree verie well together, neither will there be seene any chinker, gaping, or rift, betwixt the commissures and joynts of the two barkes. This done, bind and wreath aboue and below the said grafted barke with a band of verie drie hempe, being vvithout 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 eyelet, or pinch the barke too hard, for this vvould 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 manner, 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 certaine: and therefore I would counsell the Gardener to trouble himselfe but little at all with it.

Chap. XVI.

Of grafting in the bud after the manner and forme of a Scutcheon.

For to graft 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 eyelet 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 sorts of grafting, we may follow the forme and order which followeth.

In Sommer when the trees are well replenished with sap, and that their new siences begin to grow somewhat hard, you shall take a shoot at the end of the braunches of some noble and reclaimed Tree, whereof you would faine haue some fruit, and not maime it of his old store or wood, and from thence raise a good eyelet the tayle and all, thereof to make your graft: but when you chuse, take the thickest and grossest: diuide the taile in the middest before you doe 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 any more of the said taile: afterward with the point of a knife that is verie sharpe and will cut well, cut out of the barke of the said shoot, the patterne and resemblance of a Scutcheon or Shield, of the length of a naile, in vvhich there is onely one eyelet higher than the middest, together with the residue of the taile which you haue left behind: and for the lifting vp of the said graft in Scutcheon, after that you haue cut the barke of the shoot round about without cutting of the wood within, you must take it gently with your thumb; and in pulling it away, 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

ſhould leaue it behind with the wood, then the reſt of the Scutcheon were nothing worth. You ſhall find out if the Scutcheon be nothing worth, if looking within it, when it ſhall be pulled away from the wood of the ſhoot, you find it to haue a hole within, but more manifeſtly, if the bud be ſtayed behind with the wood in the ſhoot, 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 barke of the tree where you would graft it, and looke that it be cut without anie wounding of the wood 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 entreatie, and that with little Scizars of bone; and ſeparating the wood and the barke a little within, euen ſo much as the Scutcheon is in length and breadth, you muſt take heed that in doing hereof 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 ſaid little Scizars of bone, and cauſe the ſaid Scutcheon to ioyne and lye 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 rind ſo cut, and let the vpper part of the Scutcheon lye cloſe vnto the vpper end of the inciſion or barke of the ſaid tree: afterward, bind your Scutcheon about 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 middeſt, to the end that eyther 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 ſtrait, for that would keepe it from taking, the joyning of the one ſappe to the other being hindered thereby, and neither the Scutcheon nor yet the hempe muſt be moiſt or wet. And the more juſtly to bind them together, begin at the backſide of the tree, right ouer againſt the middeſt of the inciſion, and from thence come forward to joyne them before, aboue the eyelet 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 eyelet, 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 eyelet onely 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 behind, 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 forth 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 yeare is paſt, and that the ſhoot 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 in the yeare going before, as hath beene ſaid. When your ſhoot ſhall haue put forth a good deale of length, you muſt ſticke downe there euen hard joyning thereunto little ſtakes, tying them together verie gently and eaſily, and theſe ſhall ſtay your ſhoots, and prop them vp, letting the wind for doing any harme vnto them.

In this ſort you may eaſily 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

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 ſtay the riſing vp of the ſap of the Tree, and ſo thoſe which were aboue ſhould conſume in penurie, and vndergoe the foreſaid inconuenience.

You muſt note, that the Scutcheon which is gathered from the Sience 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 ordinarie to graft the ſweet Quince-tree, baſtard Peach-tree, Abricot-tree, Iujube-tree, ſowre Cherrie-tree, ſweet 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 ſweet Quince-tree, and baſtard Peach-tree, of the faireſt wood and beſt fed that you can find growing vpon the wood of two yeares old, becauſe the wood is not ſo firme and ſolide as the others, and you ſhall graft them vpon ſmall plum-tree ſtockes, being of the thickneſſe of ones thumbe: theſe you ſhall cut after the faſhion of a goats foot, you ſhall not goe about to make the cleft of any moe ſides than one, being about a foot 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 bind it vp with Oziar, to keepe it the ſurer, becauſe the ſtocke is not ſtrong ynough of it ſelfe for to hold it, and you ſhall furniſh it euerie manner of vvay, as others are dealt withall. And this kind of grafting is more profitable, and ſooner growne vp than that which is done in the forme of a Scutcheon.

Chap. XVII.

Of other ſorts or kinds of grafting vpon all ſorts of Trees.

You may graft in the bud, by taking vp the bud of a young ſhoot or plant, and putting it with a little barke in the place of another, which you ſhall haue pulled from the Tree, vvhereupon 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, foure foot euerie way, and the one hard by the other, in the one of theſe plant an Oliue-tree, and in the other a Figge-tree, or any other ſuch like ſort of Trees as ſhall beſt pleaſe you: when the Oliue-tree hath taken root, you ſhall bow downe ſuch plants of the ſame as ſeemeth vnto you the faireſt of the reſt, and bind them to the foot of the ſaid Figge-tree: this being done, cut away all the other plants of the ſaid Oliue-tree, except they be ſuch as you meane in like maner to graft: then cut downe the Figge-tree, and make ſmooth and euen the cut: after this, cleaue it in the middeſt with a wedge, after which ſcrape both the ſides of the ends of the ſiences of the Oliue-tree, ſuch as the Tree beareth, and put them in the cleft of the Figgtree, in ſuch manner as that they may reach through, afterward lome the ſaid cleft of the Figge-tree on the one ſide and on the other with tough lome, and tie faſt within the ſtocke of the ſaid Figge-tree, the ſaid plants, in ſuch ſort as that a man cannot pull them away. Thus three yeares after, the Figge-tree and Oliue-tree will grow together, and the fourth yeare when they are well growne, you ſhall cut and vncouple the plants of the ſaid Oliue-tree from it, as is done in propagating, ſo they ſhall

ſhall ſeeme not to appertaine any longer vnto the Oliue-tree. This manner of grafting is verie vſuall in the Countrie of Mans, where I remember I haue taſted of a grape which had the taſt 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 Canon. To graft in a Canon, Flute, or Cornet, is thus performed: You muſt raiſe a long Gun or Canon hauing two or three eyelets, from off 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 ſome branch of a plant, of the like thickneſſe, a Canon of the like length to the former, and in place of this later, you muſt make faſt the foreſaid Canon 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 eyelets ſo carefully, as that they may not be hurt, then you muſt cut away the wood which is aboue the root, 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 bodie of a Tree is thus: You muſt pierce the ſtocke of a Tree with a wimble euen vnto the pith, and afterward cleanſing the hole of the wimble verie well, you muſt by force put a graft thereinto, which hath two or three eyelets within, and then after that cloſe vp the hole verie ſure with waxe.

To graft vpon a willow. To graft vpon a Willow, or Colewort: Make in the pole of a Willow, or ſtocke of a Colewort, two holes, reaching to the marrow or pith, either halfe a foot from the other, ſet therein as it were by force euen in either of them, a graft of ſuch fruit 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 ſtop the ſame holes verie well with Waxe, pricking downe the ſaid pole within halfe a foot of ſome water, after ſuch a manner as that the grafts may be three fingers vnder the earth, and at the end of the yeare when it hath taken root, cut the plant in peeces, and plant euerie 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 than a little or thinne one vp on high, but yet it may not be old, though it may haue a hard barke rather than a ſoft and thinne: afterward, you muſt open it vp aboue on high, in three or foure places, in the cut of the barke of the ſaid ſtocke: which done, you muſt with the helue of a penknife of bone being verie ſharpe pointed, put into euerie 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 clay 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 ayre 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 wood, after which, it remaineth that theſe grafts be fitted to ſet round about the bodie of the Tree, one diſtant from another, no leſſe than foure 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 bodie of the Tree three or foure turnes and doubles, that ſo by this meanes the grafts may be garded, and ſtand faſt againſt the winds and whatſoeuer other violence: and againſt the bodie of the Tree you muſt ſet a ſtake or prop, for to beat it vp and ſtay it, taking away all the ſhoots that are about it: becauſe that by how much the number ſhall be the leſſe, by ſo much the more will the ſap procure the ſtrength and grouth of boughs.

To graft in a Sience. Some doe graft in a Sience 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 ſience of one joynt, and writh it, afterward taking from it his joynts and bark, and ſo graft it vpon a ſhoot 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 thick-

neſſe

nesse of ones thumbe, and sufficient broad and long, together with the eyelet and sience belonging thereto, and so verie speedily graft it altogether vpon the braunches of another Tree, cleauing the barke into three or foure, and fastening it thereto verie close and strait, and vnto the head of the stocke, if so be that the morsell goe 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 joynt, and to tie it well with some little peece of Woollen cloth about the morsell, not touching the eyelet in any case. In Iune and Iuly you may graft in this manner on high vpon braunches without vsing of any band thereto: and when this morsell hath well taken, some doe vse to cut off that part of the branch that is aboue.

Some graft vpon poles after this manner: vvith 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 foot one from another: afterward, they put in these holes thus pearced great store of shoots 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 so be they take, the pole is broken, and they remoued into other places. *To graft in Poles.*

Some there are that make impes of Peare-trees and Apple-trees in a greene lath of vvitch-hazell, where they put their grafts, betwixt the barke and the wood, and going afterward to chuse a moist place, therein they burie the said greene lath halfe a foot deepe, leauing the shoots a foot 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 Normandie likewise they make plants of sprigs and new braunches growing vp from the feet of the Peare-trees and Apple-trees, these they cleaue in foure quarters, and in the middest of them they put the end of a Barly eare, or else a Beane, and are reported by that meanes to breed good and naturall trees, without any other maner of grafting of them: but I am of opinion, that neither the Beanes nor yet the Barly doe any good for the helping of them to take root, because that commonly such stockes as are planted doe not put forth root at the end of the foot, but higher, as almost euen at the top of the earth, there being the most nourishing part of the earth.

Some put young braunches and sprigs into the ground, yea and the thin rindes of Plum-trees, which afterward take root, and thereupon they plant abricots, but this commonly happeneth in a moist, good, and fruitfull soyle.

Some doe ordinarily plant stockes of the Garden-quince-tree, and graft Peare-trees thereon, as also Apple-trees and great Peaches, the fruits whereof tast as if they were Peach-plums, but they must be grafted halfe a foot within the ground, because they neuer haue any faire trunke, and being grafted thus low, the graft will put forth roots of it selfe, which will make it endure and continue the longer time.

Some haue likewise found out a way to graft the vine, which is a verie 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, than by pulling of it vp, and planting another in the place. *To graft the vine.*

Some graft vpon the foot of a plant, which is a great fault, because that at the most from thence they cannot gather aboue two or three impes, putting things also in aduenture, as well by reason they are not sure that they will take, as also because that the branch is not strong ynough to defend it selfe from the wind. Notwithstanding seeing that the vine taketh root 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 choyce from the foot or stocke of some vine which pleaseth you not, of certaine braunches which you shall find fit and meete to receiue grafts, whether they be new wood, or of

two

two or three yeares growth, cut them off and cleaue them some three or foure fingers, euen vp vnto some ioint: then sharpen the other branch which you meane to graft, and sticke it in the cleft of the other, ioyning together the rind 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 pack-thread, or else with Oziers, verie well. Hauing thus done, prepare a place where you will set it, and lay downe your 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 ioyned the two branches. By this meanes, of one Vine-stocke you shall make manie, turning in the earth vpon your grafts of the stocke 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 Pomegranat-trees, Nut-trees, Rose-trees, and other such like low and little trees.

Chap. XVIII.

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 early 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 moneths 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 Mulberrie-tree. The cause of this hastened ripenesse is the nature of the tree whereupon you haue grafted, which being the onely nurse to the graft, and being of a timely 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 the graft of a timely, the graft will afterward bring forth late fruit in his kind: and staying after his due and wonted time, as if it be an Apple-tree vpon a Quince-tree, the Apples will proue 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 yeares. By how much the more you graft vpon a tree of the same kind 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 wild one vpon a wild one: by so much the fruit becommeth greater, and is of a better tast, 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 Summer time, till the beginning of Nouember.

Halfe Peach and halfe Nuts.

To cause fruit to grow that shall be halfe Peach and halfe Nut, take an eyelet of the one and of the other, and cut them as neere the eyelet as you can, both the one and the other, and scrape their buttons a little; then ioyning them, bind them also verie well together, and after cut away their toppes: the fruit growing from these, will be halfe Peaches and halfe Nuts.

One fruit hauing the tast of manie fruits.

You may make one fruit to haue the tast of foure fruits of his kind after this maner: Take foure shoots or grafts of foure differing sorts, but of one kind of tree, as of foure 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 glue, or with sand, or some fat earth, so close, as that they may seeme to be all one: put

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 foure 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 onely; vse them as before, and looke as the grafts were, so vvill the apples be. In like manner if you couple, joyne and close together in such close and fast manner two small figge-tree boughes, the one of a blacke figge-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 figges that come thereof vvill haue a red flesh on the one side, and a white on the other. Some to worke the like effect, doe put into some linnen cloth the seeds of two sorts of figge-trees, and hauing tied them verie strait, digge them in the earth, and when they are growne vp, they remoue the figge-tree which is growne vp vpon them.

Some doe likewise make grafts to beare halfe Peares, and halfe Apples, cleauing one Apple-tree-graft, and one Peare-tree-graft, and after joyning the one halfe of the one to the other halfe of the other, and tying them close together, and loming the joynts and seames verie well with Gum and Wax mixt together, in such manner as that the water cannot find any entrance at their joynts, 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 verie hard to bring forth fruit. Wherefore they which take pleasure therein, must be contented with two sorts of grafts, and not to plant them, but rather to graft them vpon another Tree of the kind of the said grafts, binding them close together, and sharpening them verie fitly for the purpose at the lower end, in manner as if they were but one onely graft.

If you hollow the branch of a Cherrie-tree taking away the pith, and after set it againe, it will bring forth fruit without any stone: or else thus better: cut off a young Cherrie-tree within a foot of the earth, cleauing it also euen to the root, take out the pith both of the one side and of the other, afterward joyne them together againe, and tye them close with a strait band, and a yeare 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, vvill be without any stone. Otherwise, cut off from such stone-fruit-tree as you desire, a graft which may be easily bended: sharpen it on the two ends, and graft it likewise on the two ends vpon two parts of the Tree, make close the two grafted places with the mosse of fat ground, and tye them carefully with a band: the yeare following, if you see that the two ends of the graft haue taken some force and strength from the stocke, putting forth some buds, then cut the graft asunder in the middest, and take cleane from it the thickest sprig that it hath, and let the other grow, and it will beare in his due time fruit that hath no stone. The same will come to passe, if you propagate the ends of the smallest boughs of the young Cherrie-tree, plum-tree, or other stone-fruit-tree, and after that you see that they haue taken root, if you cut off the thickest and fairest twig, and let alone the leanest and slenderest. The reason and cause of this is, for that the stone cannot grow, if the tree lacke his pith, but in the tops and ends of little boughs 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 than that which groweth of trees whose pith is taken out.

Cherries without a stone.

If in the vine, figge-tree, cherrie-tree, or apple-tree, you cleaue a branch which hath borne fruit, and take the pith out of it, putting in steed thereof some laxatiue or soluble thing, and binding it well and streight, you shall make the fruit laxatiue, according to the nature of that which you haue put in: and if you put therein some sweet smell or pleasant colour, the fruits will smell of and shew the same: and if you doe this in a rose-tree, the effect will appeare in the rose: and who so shall put treacle or mythridate in the vine, wine made thereof wil cure the bitings of serpents, and

Laxatiue fruit. Fragrant fruit. Coloured fruits. Fruits hauing the vertue of treacle. Wine against the bitings of Serpents.

and not the Wine onely, but the grape, vinegar, branch, and ashes of the braunch, will be good against all manner of biting of venimous beasts.

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 shoot that is of the like thicknesse with the graft, and it will take.

To graft a vine vpon a vine.

To graft a Vine vpon a Vine: you must cleaue it as you doe other Trees, that is to say, euen to the verie pith, and afterward putting the graft into the cleft, you must stop it vp vvith Waxe verie vvell, and tye 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 vvarme places, and in March in cold places, and that when the Wine sheddeth a kind of thicke liquor, and not thinne like vvater: the like may be done in May, and in the beginning of Iune, vvhen the sap or juice of the vine is all fallen, but in the meane time, you must keepe the grafts that you vvould graft in cold and shadowed places, that they may put forth buds and spring. See more hereof aboue.

Plums at all times.

To haue plums of diuers sorts all the Sommer time, and vnto Neuen-ber, graft diuers sorts of plums vpon the Goose-berrie-bush, reclaymed Mulberrie-tree, or vpon a Cherrie-tree.

Peaches, cherrie, and medlars, eating like spice.

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 reclaymed and well husbanded Mulberrie-tree, as I haue told you, and 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 Cinamome, and the fruit will haue a taste of them.

Medlars without stones.

To cause Medlars to grow without stones, and withall to be sweet as honie, graft them on Eglantine, and in the grafting of them, wet them in honie. But to haue medlars in their greatnesse two moneths before ordinarie, and that one may be better than twentie others, graft them in a reclaymed Mulberrie-tree or a Goose-berrie-bush, and at the grafting thereof wet the graft.

Peares of Augusta.
Peares of Parma made to be earelie ripe.

To haue Peares of Augusta, of Parma, or of S. Rieule, a moneth or two sooner ripe than others, graft them in a reclaymed Mulberrie-tree, and if you would that they should indure and keepe good vntill new, graft them vpon a quince-tree, that they may come late, and on a reclaimed mulberrie-tree for them to come earely.

Tame mulberries earely and late.
The time of grafting them.

To haue reclaymed mulberries earely ripe, graft the mulberrie on the peare-tree, chesnut-tree, or goose-berrie-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 better three or foure daies before the first quarter, for how many daies the moone is old when it is grafted, so many yeares will it be before the Tree bring forth fruit, as we haue touched before.

Nuts without shells.

To haue nuts without shells, you must take a kernell which is verie 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 forth nuts without shells: the like may be done in almond-trees, if you oftentimes put ashes vnto the foot 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 foure stones of the foresaid fruits, and put them in a pot or other vessell full of earth, joyning 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 constrayned to put forth their sprout vp on high through the said hole, and by this constraint the foure sprouts will joyne 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 kind and nature. But for the more easier doing hereof, you must after the fruit is once shaped & fashioned, take away from the nut-tree, almond-tree, plum-tree, and such like, all the small and rascallie sort of fruit which you shall find vpon them,

them, and so the juice 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 away if they had not beene gathered. Wherefore the case stands plaine in the whole matter of nourishment, vvhether it be in things that haue life, or those which are vvithout life, that the starued or rascally sort doth come, by the juice his conuersion and being turned vnto the nourishing of other fruits 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 euerie one, vvhereas when it hath but a few to feed, it dealeth the more bountifully.

To cause an oake or other tree to continue greene as well in Winter as in Sommer, graft it vpon a Colewort stocke. *To keepe an oke or other Tree greene at all times.*

Write what you will in the eyelet of the figge-tree, vvhich you meane to graft, and the figge growing thereof will containe the said writing. *Written Figges.*

The figge-tree will not loose his fruit if the stocke be rubbed ouer with Mulberries; or if you cause it to be cast about with pits while the seuen starres doe appeare, vvatering the foot with salt brine and vvater mingled together equally. *That the Figge-tree loose not his fruit.*

The Cherrie-tree will beare a pleasant and sweet smelling fruit, and will not be subject vnto the eatings of snailes, caterpillers, and other small wormes if it be grafted vpon a bay-tree. *The Cherrie-tree grafted vpon a Baie tree.*

The peare-tree that you vvill graft, vvill 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 vvell perfumed and sweet smelling fruit: by this peece of cunning skill, Roses become to smell of muske, and the eyelets haue the smell of cloues. *The Peare-tree of sweet roses or muske sauour.*

It must stand for a generall rule, that neither any graft after the blossome, as neither that which is laden with fruit, is to be grafted.

If the white Poplar be grafted vpon the Mulberrie-tree, it will bring forth white Mulberries. *White Mulberries.*

The Cherrie-tree vvill beare his fruit more earlie, and before his ordinarie time, if you lay quicke lime vnto the roots: or if they be watered oft with vvarme vvater: some say likewise, that if you graft a blacke vine vpon a Cherrie-tree, that then the vine vvill beare grapes in the Spring, the reason whereof we haue set downe in the beginning of this Chapter. *Grapes in the Spring.*

Graft Citron-trees vpon Pomegranat or Mulberrie-trees, and the fruit thereof will be of a red colour.

If you would transforme fruits from their naturall shape, into some other diuers and artificiall shapes, put the said fruits when they begin to be somewhat bigge, betwixt two moulds of plaster or baked earth, within which there are portratures of diuers sorts, cut and tie them softly, for the fruit as it groweth will take the stampe and impression more and more: but in the meane time, you must conuey ayre into the moulds at little holes: for else the fruit would rot within. *To fashion fruits after what shape that one will.*

The graft that is made vpon the Alder-tree or Oake, bringeth forth a verie strong Tree: but if it beare fruit, yet the fruit is of no sauour or taste.

To haue Peaches or Almonds to grow with letters written vpon them: after that you haue eaten the Peaches or Almonds, steepe the stone two or three dayes, afterward open it softly and take out the Almond, and vvith a brasse pen or otherwise vvrite vpon the rinde of the Almond, vvhat you please, but doe it not too deepe, afterward put the Almond againe into his stone, vvrapping the said stone about vvith paper or parchment, and so plant it, and the fruit growing thereupon vvill be vvritten and ingrauen. *Peaches or Almonds written vpon.*

To make Peaches redd: seuen dayes after you haue set the Peach stone, take it out of the earth againe, and vvithin the opening of the shell put some Vermillion or Cinnabrium, and then set it againe: It will fall out likewise after the same manner, *Red Peaches.*

Peaches of one or other colour.

if you graft the great Peach vpon the red Rose-tree, or vpon the Almond-tree, or vpon the red damaske 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 withered 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 bodie of the Peach-tree below, 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.

Pomegranat-trees will proue verie fruitfull, if you annoint the stocke of the Tree with purcelaine and spurge stamped together.

To make bitter almonds sweet.

Of an Almond-tree that is hard and bitter, you shall make a soft and sweet, if you bare the stocke euen vnto the roots 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 sweet.

To make good Muscadell.

To make good Muscadell: Take an yron wyre and put it in the plant of a stocke, which is cut with three eyes, vsing the meanes to haue all the pith forth: 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 eyes shall beare will bee Muscadell rootes.

Nuts with thin shells.

That nut will haue a ve.ie tender shell and a verie 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 find 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 than elsewhere, and the Peare-plum-tree in the Almond-tree, and there continue a longer time.

The grafting of the peare-plum-tree.

If the eyelet of the Peare-plum-tree, and of the Almond-tree be 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 rind or huske will be like vnto the nut huske or rind, but within it will be a plum. Againe, if it be grafted vpon a quince-tree, it will bring forth a fruit of a diuers fashion, according to the nature thereof.

Fruits without blossomes.

Graft a Plum-tree graft or any other fruit trees graft vpon the figge-tree, and you shall haue your fruit to grow without blossoming.

Apples of a yellow colour.

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: & 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 yeares.

Apples of two taste.

Take two grafts of apple-trees, the one sowre, and the other sweet, and joyne them close together when you shall graft them: the apple will taste both of the one and other sauour, as we haue said before.

Late riping fruit.

If any tree bring forth his fruit late, or if it be altogether barren and without fruit, and yet full of both leafe and vvood: set in the middest of his maine roote, or else in the middest of his stocke about Winter, a wedge of greene-wood, the next yere following it will beare fruit. The reason is, because by the meanes of this wedge, the

the ſap and ſubſtance which wandred abroad and imployed it ſelfe about the bearing of leaues and increaſe of wood, will draw in it ſelfe, and goe a cloſer and neerer way to worke, conuerting his ſeruice to the making of fruit.

You ſhall haue Cherries on many Trees which will be good to eat vnto Nouember, if you graft the Cherrie-tree vpon a reclaymed Mulberrie-tree, and vpon a wild one. *Cherries at all times.*

If you deſire that the fruit of your grafts ſhould increaſe in goodneſſe, and ſurpaſſe the taſt of the common grafts as they are when they are grafted, you muſt firſt before you graft them, ſteepe them in honie tempered with Roſe-water, ſo long as till they be throughly moiſtened, and then grafting them, draw them ouer afterward in ſteed of morter with Virgins-wax, and other things fit to lute withall: if after this manner you graft Medlar-trees on Gooſe-berrie-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 Gooſe-berrie-buſh, if you would haue them to beare their fruit 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 verie 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 verie diligently: but and if the peare-tree be alreadie growne vp, and become a perfect Tree, you muſt lay it open to the loweſt roots, taking away all the ſtones and grauell that is vnderneath, and about it, and caſting in the earth againe which you caſt forth abroad, but after that it hath beene ſifted, and ſome dung put vnto it, ſeeing that it be watered, after you haue ſo caſt in your earth. *Peares without ſtones.*

The pomegranat will become verie red, if you water the pomegranat-tree with water and lee mingled together. *Red pomegranats.*

The ſowre pomegranat will become ſweet, if you lay about the root of the pomegranat-tree the dung of ſwine, and water it with mans vrine. *Sweet pomegranats.*

Graft the graft of the Peach-tree vpon the Quince-tree, you ſhall haue Peaches and Quinces together: likewiſe if you graft vpon the Peach-tree, the graft of the Quince-tree. *Peaches and quinces together.*

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 forth both Peaches and Almonds, whoſe rind and kernell alſo will be good to eat. *Peaches and almonds together.*

To haue a pippin or kernell to bring forth a faire fruit and timelier than 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, and haue a grain or two of ſalt put into them, and hereupon the branch laied in the earth with a few oats, cutting off the end as is vſed to be done with grafts when they are grafted. If hereupon the branch take and wax greene, it wil beare a fairer and timelier fruit than any other of that kind. *To haue faire fruit of a pippin or kernell.*

To haue red Apples, you muſt plant Roſe-trees or Mulberrie-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 beat in ſuch ſort, as that the vapour which ſhall riſe from the water may beat againſt the fruit: or elſe vncouer the Apple-tree at the foot in the Spring time, and water them ſundrie times with vrine: couering them againe about ten or twelue daies after, and watering them with vrine betwixt times. *Red apples.*

To make apples ſweet, you muſt water the roots of the apple-tree with mans vrine, wherein hath beene diſſolued goats dung, and the lees of old wine. *Sweet apples.*

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 foot aboue the earth, with a plate of lead 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 euerie yeare, to make the apple-tree fruitfull: the like course also may be taken with the peare-tree.

A tree bearing grapes and his owne naturall fruit. To make a tree to beare grapes together with the fruit of his owne kind: Put the stocke of a vine in the foot, 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 joynts remayning within the stocke, and so much of your vine stocke as remayneth 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 together: after this, you shall stop the holes of the said bore verie close, both of the one side and of the other, to preuent all daunger of water getting in, and at the end of three yeares, cut off the vine stocke behind, thus your tree will beare grapes, and his owne naturall fruit, and both they will grow from the same trunke or bodie.

Peaches. 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 fruit called peach-apples, and peach-peares. And thus likewise standeth the case, if you graft (as hath beene said) the graft of a peare-tree.

Chap. XIX.

Of the time of planting and manner of transplanting of grafted trees, both great and small.

The fittest time to plant. 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 root, and bud more readilie, and put forth the sooner, especially in cold places. The greatest part of this our countrie of France, doe plant and transplant trees before and after the foure and twentieth of December, at which time we see here in the citie of Paris euerie Wednesday and Saturday great sale of diuers sorts of trees: and yet in my judgement this is not the best time to plant and transplant, because that trees would not be washed nor wet about their feet, at such time as they are planted: but for the time before and after the foure and twentieth of Nouember (which is called the dead Moneth) it doth nothing but raine for the most part, as we haue obserued for this ten yeares space: and although this time were cold, as some commonly report that for three weekes before this day, and three weekes after, great cold doe rule and raignes then if the cold be so great, how should it be but that the roots of the Trees transplanted, as also other plants should freese, especially the earth being newly stirred, as is most euidently apparant in vines. But the best time to transplant Trees, is in Autumne, because 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 persuade, and for that in this time Trees take root much better than in Winter, in which time there is nothing almost that thriueth. And if the case so stand as that it is fit for to plant great thicke Trees, the pit must be made sixe moneths before, and that because the earth should thereby be corrected, and as it were renewed by the ayre and heat, as husbandmen and other workemen know verie well which turne their grounds before Winter, and all the time thereof let them lye thus tilled, then by a farre stronger reason, you shal find that it is much better to plant trees in Autumne than in Winter. But howsoeuer it be, when you plant any thing in Autumne, it must be done some fiue daies before the end

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 fertile and fruitfull: but and if you plant in the encreasing and new Moone, indeed your trees will take better, and become more durable and lasting: they will spread in root, 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 shoots that they shall thereupon put forth about the later 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 warrantize, but that the tree may be as profitable at all other times of the Moone, as well as either then, or else in the encrease and new of the Moone.

Some plant in Ianuarie the plants that haue the shanke or foot of their shoots cut byas, as also the plant that is set of stones, and in a well tempered place: but in a warme place, men are wont to plant in the moneths of October, Nouember, and December.

Trees that haue a grosse thicke root, are planted in October, Nouember, and December: but the shoots or little branches are planted in March, when they are in sappe.

Trees that haue a great pith, as Figge-trees, naturalized Mulberrie-trees, Hazell, and such like, are planted without anie root, 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 verie 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 forth their siences verie powerfully: and if in taking of them vp, or transporting of them, it happen that the barke of their roots 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 end that their roots may spread and seat themselues to their good contentment, without being pinched or straitened.

Some doe remoue from after the beginning of Nouember vntill March, when the trees begin to enter into their sappe; for the sappe once drawing vp aloft, doth forbid all remouing 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.

Young grafts.

The young grafts which you haue grafted in the stocke-Nurserie, or elsewhere, must be remoued 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 anie disposition or good liking of the sappe of the plant, which being thus againe remoued, is halfe astonished and put out of the high way of his well-pleasing nourishment, and so beginneth to wither when it commeth to take a tast of his new dishes and prouision: but and if you stay till the graft haue put forth a faire branch, before you remoue the graft, you shall shunne 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 weightie matter let you: but if you be put off from doing it, either because it is brought you from farre, or vpon some other occasion, you must, so soone as they be taken

taken vp, couer their roots with the earth from whence they were taken, new leaues, and ſtraw, that ſo the raine may not waſh them, and make them afterward to rend when they become drie againe; and to the end alſo, that the ayre and breath either of the wind or of the Sunne, or yet of the Moone, may not drie them and ſucke out the moiſture, which keepeth their roots in good heart, and fit to grow, both theſe things being verie hurtfull, but the raine the worſe of the two.

Sowre Cherrie-trees cannot abide to be remoued: for being tranſplanted, they will hardly put forth anie ſiences, eſpecially if they haue their chiefe and principall root maimed.

Before you remoue great trees, you muſt loppe off their boughes verie diligently, as hath beene ſaid: but as for little ones, you need not crop them, to take off anie part of their heads, neither yet to take anie 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 toppes vpon trees when they are growne ſomewhat great and thicke, they will ſtill be ſending of their ſappe vpward, not looking to the feeding of the roots, for that the ayre attracteth the nouriſhment of plants: as may eaſily be proued by example, when there groweth anie ſmall tree vnder one that is verie great, for there the ſmall tree will not thriue ſo well as if it were abroad in the ayre, and from vnder the ſhadow; and ſo that which hath his head cut off, will take root ſooner than and if it were whole and vntouched. But if the tree which you remoue, exceed not the thickneſſe of a great ynch, you ſhall let it remaine whole, becauſe young plants take root more eaſily than thoſe which are old, and the reaſon is openly knowne.

If the rootes of the trees which you would remoue, be much longer than is needfull, you may take off the ends thereof 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 ſtopped 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 aboundantly.

When you remoue anie tree, you muſt lay his rootes round about with fat earth, and take heed, that the weedie earth which you haue digged or cut away from the pit whither you meane to remoue it, doe not fall in amongſt the roots, for it would put them in danger to be ouer-heated: 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 rootes haue taken foot, 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.

Chap. XX.

Of the place and ſoile for Trees in generall.

THe principall point in growing of Trees, is to prouide them of conuenient ayre 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 be had in regard and looked vnto more than anie thing elſe, as that it be ſuch as is verie murlie, temperate in cold and heat, and of a meane and middle ſort of moiſture and fatneſſe; for ſuch ground as exceedeth in anie 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 verie well knowne, that euerie particular Tree craueth his ſeuerall and particular ſoyle, whence it may gather fit and agreeable nouriſhment for it ſelfe,

as

as *Theophrastus* testifieth. In like manner, one desireth a diuers kind 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 valleyes than in high places, as well for that their seat must not be altogether so drained of moisture as the higher places be, as also for that the moisture which is in higher grounds conueyeth it selfe and distilleth into the lower and hollow, whether it be raine or anie 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 stay 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 goodnesse that the fruit hath in it selfe, if both the industrie and skill of man to husband and keepe it neat, 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 goodnesse, tast, and durablenesse, 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, than 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 hereof, 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 soyle, and a late soyle 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 wind, as being verie contrarie vnto them, especially to Almond-trees, Abricot-trees, Mulberrie-trees, Figge-trees, and Pomegranate-trees, but principally from the North-east wind, because it is sharpe & swithning, verie hurtfull for all sorts of plants, euen to all fruits, of what qualitie soeuer that they be, but chiefely 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 North-east: and some say, that this wind bloweth once a yeare, as in the Spring, and that it spoyleth buds, especially those of the Vine: *Unde versus; Ve tibi Galerna, per quam sit clausa Taberna.* On the contrarie, Chesnut-trees, Cherrie-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 heat.

In watrie places trees commonly grow great, and beare much fruit and leaues, but they are not of anie commendable rellish, colour, or durablenesse: yea, they beare fruit commonly the yeare they are set, if they be accustomed to beare. Trees must be set the thicker in a fruitfull soyle.

If you meane to plant trees in a cold place, and that yet the tree should not be hurt of the cold, you must plant them on the Sunnie side of the banke, from the North, but towards the South.

CHAP.

Chap. XXI.

Of the place and time wherein euerie Fruit-tree delighteth to be sowne, planted, and grafted in particular: and first of the Almond-tree.

The Almond-tree.

THe Almond-tree delighteth in hot places, looking towards the South or East, or where the ayre at the least is moderate; as vpon the tops of hills, or places neere vnto hills, that are somewhat stonie and grauellie, stonie or marlie: in which places it doth not onely flourish well, being planted, and blossome aboundantly, but beareth therewithall great quantitie of drie Almonds, as also hard and well-rellisht 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 early in putting forth buds, if it were planted in the Spring time, it might let slip and loosen the time of the yeare, 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 seed, 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 shells, verie porous and spongie, and lay them in steepe for the space of twelue houres in honied water, and after this digge them in the earth foure fingers deepe, the sharpe end downeward, and after to water them three or foure times a moneth. It groweth also of shoots and siences, but the sience 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 beene said) this tree is a quick-spur and fore-rider: but and if you stay till the Spring time, you shall breake it off when the sience is fully put forth. 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 grafts you may graft either in the bud, or in the cleft, and vpon a tree of his owne kind, or vpon the Peach or Plum-tree: indeed 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 make grow great store of Almond-trees, seeing they are not chargeable to maintaine, neither yet their fruit to keepe, but rather of greater profit and lesser losse than anie 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 roots in Winter: or else if you pierce 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 Almonds sweet, if you lay round about the roots of the Almond-tree Swines dung, and Vrine, casting much earth vpon it afterward, and this yearely: or if you bore a hole in the stocke of the tree, and put therein a wedge dipt in honey: or if (as *Plinie* and *Theophrastus* say) you bore the stocke through and through below, and let the sappe runne out.

Bitter Almonds.

Of sweet Almonds you may make sowre ones, if you let the beasts browse and crop off the first and tender branches.

The Almond-tree will be free from all annoyance of fogges, if so be there be small grauell laid vnto the rootes before it blossome, and when it shall begin to blossome, then to take it away.

You

You may haue written Almonds, if you breake the ſhell of an Almond verie finely, without doing anie harme to the kernell, whereupon hauing written what you thinke good, wrap vp the ſhell and kernell in paper, and ſo ſet it well couered with dyrt and Swines dung. *Almonds within printed letters.*

Almonds are gathered when their huskes gape through the force of the Sunne: and hauing beat 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 gathering of Almonds.*

The place to keepe them well, muſt be drie, 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 ayre, and be lying open to the North wind. *The place to keepe them in.*

The bitter Almonds haue power to reſiſt drunkenneſſe, as *Plutarch* witneſſeth, of a certaine Phyſition, which did vſe to drinke out all comners, and not be drunken himſelfe, and that by eating fiue or ſix bitter Almonds before he did drinke: but they kill Hennes and Chickens if they eat them. The bitter Almond bruiſed and rubbed or layed to the browes and temples, doe appeaſe the head-ach, and procure ſleepe, eſpecially if you put vnto it water of Veruaine. *Drunkenneſſe.*

The vſe of ſweet Almonds is good for them which are troubled with clammie fleame in their throat, or which haue weake lungs, and are ſubiect to the grauell in the reines, or difficultie of vrine, as alſo to reſtore natures force, and to make men apt to venerie. The gumme of the Almond-tree doth quickly ſtay the ſpetting of bloud: yea, the daily vſe ſufficiently ſheweth how profitable this fruit is, for it ſerueth all the yeare long for the making of Almond milke, Potage, Pennets, Marchpanes, and other ſuch daintie deuiſes. *Diſeaſed lungs.*

Chap. XXII.

Of the Peach-tree, Abricot-tree, Spaniſh Peach-tree, Peach-Plum-tree, baſtard Peach tree, and the ſmall Peach-tree.

PEach-trees are planted of their 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 end turned into the ground, and when it is in the earth, digge it, battle, and ſtirre vp the earth about it at the foot, at the leaſt thrice a yeare: you muſt allow it dung, a fat ſoyle, and a ſmall mould, and that a little before Winter come, and eſpecially Swines dung, which maketh it to grow more thicke than anie other ſort of dung or batling; by this meanes you ſhall haue good Peaches, thicke ones, and fleſhie. You muſt likewiſe weed them oft: after, when it is two yeares old, you muſt remoue 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 grow to ſerue for the ſtocke and bodie, and thus it will continue long by reaſon of the great number of roots 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 ſtraightſt of all the other, which is the thing that would be diligently practiſed vpon all fruit trees, becauſe that it is the thing which keepeth them from bearing ſtore and aboundance of fruit. It is not to be grafted out of it ſelfe, if you will haue it excellent: howbeit, to make it laſt the longer (in as much as it ſoone waxeth old) it is good to graft it vpon a bitter Almond-tree, damaske Prune-tree, or Quince-tree, but not otherwiſe than ſcutcheon or flute-like.

It

It must be watered at euenings in hot weather, with coole water, and sometimes with water mingled with the lees of wine, especially when it withereth and beginneth to fall away: as also to remedie it when it is in danger of fainting and drying, you must lop it and cut away all the boughes, as is wont to be done with Willowes when they are headed; for by that means they become lustie and frolike, and to haue as manie boughes as they had before. It must also be stayed vpon some Pole or Willow, because his roots 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 fruit, as well in colour and tast, as in substance, and this diuersitie commeth, for the most part, of the ground, but principally of the husbanding of them. And that it is thus, the Peach-trees that are planted or grafted vpon Vines, bring forth Peaches of a better tast and more solide substance: the Peach-tree grafted vpon a Mulberrie-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 flower. 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 kernell like vnto the Almond, but the rind and the flesh like vnto the Peach.

The Abricot-tree.

There may as much be said of Abricots, called of the Latines *Precocia*, or *Armeniaca*; of Spanish Peaches, Medlar-tree, bastard Peach-tree, and small Peaches, which are kinds 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 spoyled of the cold, snowes, frosts, and fogges, 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 Goats milke. Concerning the particular vertues of the Peach-tree, see more aboue in the nineteenth Chapter of this Booke.

Melancholie. Wormes.

The flowers of the Peach-tree are excellent good against melancholie and the wormes, if you make syrrups thereof of seuen or eight infusions to be taken fasting. The gumme of the Peach-tree is taken with good successe in the spetting of bloud with the water of Plantaine or Purcelane: for the cough and difficultie of breathing, with Hydromel, or the decoction of Folefoot: for the grauell and stone with the iuice of Radishes, Citrons, or white Wine, the weight of two drammes. The leaues stamped and applyed 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 belly: eaten to the number of six or seuen in the beginning of meat, they preuent drunkennesse: stamped and boyled 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 forme of milke with the water of Veruaine, and rubd about the browes and temples, they ease the headach: the oyle made by expression ceaseth the paines of the eares, and in clysters, the Collicke and Sciatica.

He that hath regard of his health, must not vse these fruits but as sparingly as he can possibly, and fasting rather than otherwise, because they corrupt easily in the stomacke: but aboue all things, they may not be eaten dipped or steeped in wine, because wine correcteth them not, as some thinke, but rather causeth that their iuice pierceth the more suddainely 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 anie thing vnto the kernell. The Romanes made great account of the Peaches which they called *Persica Duracina*, as doe 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, as well because of their pleasant smell, as for their harmelesnesse, and that both within and without they doe rather resemble the Plum than the Peach. The oyle pressed out of their kernell, is maruellous good against the Hemorrhoids and swelling

Spanish Peaches.

ſwelling of vlcers, and is alſo vſed as a remedie againſt the impediments of the ſpeech, and paine of the eares.

Chap. XXIII.

Of the ſmall Nut-tree or Haſel-tree.

THe Haſel-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 anie aire or ground: but it beſt delighteth in a leane ground, 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 forth of their fruit in great ſtore, as for to make them endure long: adde hereto, that they put forth and ſpring in ſuch ſort at the root, as that thereof one may ſet as manie as he will in other places. When they are ſowne, they muſt be put two fingers vnder ground: but indeed they grow better of a plant that hath root, or of a ſhoot cut byas, and hauing old and new wood, as we haue alreadie declared in the ſixt chapter. They are planted in October and Nouember, in a warme and temperate place, or in Februarie 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 fruit. They muſt yearely be digged anew at the Spring, neere vnto the foot, and round about, and their ſhoots all cut away, without leauing anie ſtanding, ſaue three or foure for to plant and make thick buſhie ſhadow, and the ſame verie neat and cleane for height not leauing anie branch or bough after three or foure fadome from the top. Wherefore, if they be oft lopped, picked, and pruned, they will grow the more ſtreight, compact, and high, and will beare better and fairer fruit: but otherwiſe, if a man neglect them, they runne out all their nouriſhment into wood and leaues, without fruit: Their fruit is called the ſmall Nut or Filberd. The Filberd of hot Countries (where ſuch trees are called Filberd-trees) is more round and fleſhie than the French ſmall Nut, and it is a fruit verie eaſily dried and made yellow. But and if you would keepe it freſh and white almoſt all the yeare 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 annoyance with it as otherwiſe it would, for it naturally procureth drowſie headach and inflammation of the ſtomacke. I know not by what obſeruation of our anceſtors this ſpeech hath growne common amongſt the people, That the yeare which yeeldeth plentie of Nuts, doth alſo yeeld manie mariages. Both the little Nut-tree, as alſo his fruit, haue a certaine contrarie vertue againſt venimous beaſts; for if you hang a cluſter of ſmall Nuts in anie part of the houſe, no Scorpion or venimous beaſt will enter thereinto, but flie away preſently. The Countrey people haue likewiſe marked in all ages, that the Serpent, Lizard, or other venimous beaſt, dieth preſently, hauing beene ſtricken with a branch, ſtaffe, or rod of the Haſel-tree. And it is no maruell, ſeeing Nut kernels eaten with Figges and Rue doe reſiſt venime and the biting of venimous beaſts. The beſt ſmall Nuts and Filberds are thoſe which haue red ſhells, and which are hardly broken. The raw ſhell finely powdred, and drunke with water of *Carduus Benedictus*, doth heale the pleuriſie in the beginning thereof: being drunke to the quantitie of two drammes with red wine, it ſtayeth the flux of the belly, and the whites. It is true, that for the flux of the belly, 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 than the Nut, as being a cloſer but not ſo fat a ſubſtance.

Chap. XXIIII.

Of the Cherrie-tree, sweet Cherrie-tree, bitter Cherrie-tree, and the hart Cherrie-tree.

IT is apparant, that common Cherrie-trees, sweet Cherrie-trees, bitter Cherrie-trees, and hart Cherrie-trees, are sorts of trees agreeing in manie things, for they all delight to grow in a cold and moist ground, or else altogether indifferent, betwixt hot and cold; for a hot ayre they can hardly endure: and so likewise they refuse to haue anie dung, because it ouer-heateth them, and is contrarie vnto them: and for this cause they must neuer be planted in a manured ground. Notwithstanding, if you so temper the dung, as that it may not be ouer-hot for them, it cannot hurt them to be dunged, no more than (as wee will shew by and by) to haue vnquencht lime laid to their feet, to hasten their fruit: but this is true, that if you dung them yearely, that then you shall not haue them of anie long continuance. They delight rather to haue their roots compassed with small branches, and the broken parts of their owne siences, or small lumpes and gobbets cut from their owne small branches, for in these they greatly reioyce and profit mightily, hauing them in stead of dung. You may either digge the kernell into the ground, and burie it, or else plant of the siences neere the tops of hills and mountaines, whether it be 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 gumme, when the gumme 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 siences growing at their foot: 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 forth their fruit sooner, you must lay Quicke lime to the foot of them, or else water their roots often with warme water; but then such fruit is much altered and made worse, retaining but little of his naturall goodnesse: euen as wee will proue and find 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 kind: in such sort, as that sweet Cherrie-trees being grafted vpon sowre Cherrie-trees, doe beare a more soft Cherrie than those are which grow vpon sweet Cherrie-trees, grafted into sweet Cherrie-trees. Cherries grow fairest vpon small Cherrie-trees, and more plentifully also than they doe vpon high and tall ones: Wherefore, who so shall graft the small Cherrie-tree vpon the great, shall procure greater store of fruit, and more thicke ones, such as are the wild Cherries, and also to haue more store of great boughs, than those trees haue which doe but as it were traile on the earth. In like manner, if when you graft them, you set the bud and the eye of the graft below, the boughes that grow forth thereupon will fall out after the like manner.

The Cœurs and Agriots may be grafted vpon the common sweet Cherrie-tree, but better vpon wild ones than vpon garden ones. We must therefore acknowledge eight sorts of Cherries growing vpon Cherrie-trees: that is to say, those which are properly Cherries, hauing a verie short stalke & round apple, being also red, fleshie, full of iuice, sharpe, and hauing a sweet kernell: wild 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 lippes: bitter Cherries, which are somewhat of a bitter

bitter taſt, whereof they haue their name: Guyens Cherries, ſo called, becauſe their firſt originall was in Guyenne, they are long ones, and manie hanging together at one ſtalke; they are alſo verie ſweet: Piugarres, and theſe are groſſe thicke ones, white, hauing a hard fleſh, but ſweet, and cleauing vnto the kernell: Cœurs, which are like vnto a mans heart, as well without as within their kernell; ſome doe call theſe Cherries *Heaumes*, and the Cherry-tree *Heaumier*, eſpecially in the Countrey of Aniou: Agriots, which are ripe laſt of all, are ſharpe reliſhed, and endure carriage farre off, and they are alſo the ſame which are wont to be preſerued.

Of the ſpeciall properties and vertues of the Cherry and Cherry-tree, ſee the nineteenth chapter of this Booke, wherein is declared how the Cherry may be made to grow without anie ſtone. If the Cherry-tree be hurt of Piſmires, you muſt rubbe his ſtocke with the iuice of Purcelane: if it be too full of ſappe, you muſt make a hole in the principall root.

Cherries how faire ſoeuer they be, yet they are of ſmall nouriſhment, beget euill humors in the ſtomack, and wormes in the bodie, and ſuch are thoſe eſpecially which are called Cœurs. The ſharpe ſweet 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 ſawces, paſtes, and tart ſtuffe. The ſweet Cherries are chiefely commended, in that they make the bodie ſoluble, as the ſharpe or eager ones doe bind it, coole it, and temper the heat of choler. The gumme of Cherry-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, and taken at the mouth in the quantitie of halfe an ounce, doth put off the fit of the falling ſickneſſe; a thing verie happily and with good ſucceſſe tryed in manie, as *Manardus* aſſureth vs.

Chap. XXV.

Of the Quince-tree.

ALl Quince-trees, as well that of the Garden as the wild one, and of the Garden ones, as well the male as the female, deſireth a cold ground, and eſpecially that which is moiſt withall; notwithſtanding that we haue ſeene them as well to grow in places lying open to 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 kind of tree doth ſo much craue to haue the companie of moiſture, as that if the time fall out drie, the neceſſitie thereof muſt be ſupplyed 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, and muſt alſo be vnder-digged and laboured about the foot, that ſo the wet of the night may pierce and ſinke downe vnto the roots, that ſo it may bring forth good fruit and good ſtore thereof. When it is planted of rootes, it groweth ſo well, as that the ſecond yeare it beareth fruit: but it beareth not ſo ſoone, when it is planted of branches. It would be planted during the encreaſe of the Moone, in the moneths of Februarie or Nouember. This tree is verie commonly vſed to graft other trees vpon, becauſe they being grafted thereupon, doe continue and endure longer, and beare a more delicate fruit, than if they were grafted vpon trees of their owne kind. The beſt time for the gathering of this fruit, is in the moneth of October, when that blaſting comes, and it groweth to be of a golden colour, for this is a ſigne that it is ripe; and this muſt bee in cleare and faire weather, and in the decreaſe of the Moone: and 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 anie shew of being sicke, you must water it with the settlings of oyle, mingled with equall quantitie of water, or else with Quicke lime and Fullers clay tempered together with water. You may make Quinces of what fashion you will, if you teach them to grow in moulds 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 sorts of fruits, 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 wrichled and wrinkled, drier, of a sweeter smell and of a more golden colour than the Quincesse: the wild Quince is verie odoriferous, but of a verie 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, whereas the other are not fit to bee eaten before they bee prepared.

Venime.

The smell of Quinces is contrarie vnto venime and poyson: also the Quince it selfe doth comfort the stomacke, stay the flux of the bellie, and make men to haue a sweet breath. For which reason, wise *Solon* (as saith *Plutarch*) did commaund not onely the betrothed, but also the married women, that they should neuer lye with their husbands, but that they should first eat of the flesh of a Quince. And yet notwithstanding, the woman with child when she draweth neere the time of her deliuerance, may not vse Quinces, although that in vsing of them in the time of her being with child, they will be some meanes of her bringing forth of a faire babe. Some make a confection of Quinces, called Marmalade, which is verie 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 vnto which patterne, wee may make a laxatiue Marmalade after this sort: Take of Quinces cleansed from their Pippins, cut them in quarters, but pare them not, boyle them throughly in water, then straine them through a cleane Linnen cloth, and wring them out diligently, then boyle them againe with Sugar, putting thereto a sufficient quantitie of Rubarbe in powder. This Marmalade purgeth verie speedily, and withall comforteth the stomacke and the liuer. In stead of Rubarbe, you may put some other laxatiue thereunto, as Sene, Agaricke, or such like. The Cydoniatum, or Marmalade of Lyons, is made with Scammonie.

The flux of the bellie.

A laxatiue Marmalade.

Chap. XXVI.

Of Oranges, Assyrian Citrons, common Citrons, Limons, and Pome-adams.

THe Orange, Assyrian Citron, and Limon desire to be set vpon the South or South-west wind: for being touched with such winds as are warme and moist, they become more aboundant in iuice, better coloured, and thicker: which is the cause, that the Sea-coasts being haunted with the said winds, doe abound with durable plants, and such trees bringing forth verie fruitfully; for others, set vpon the North and North-east, are not thereby so well sieted. Some make Nurseries of these kind of trees, sowing their seeds in March. They will affirme and giue it out likewise, that they grow of siences set and pitched downe in small furrowes, or stucke downe in baskets: and some doe graft them vpon the stocke neere ynough vnto the root, 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 moneths of Summer, putting their pippins 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 also wee referre you for the same purpose.

The

The Pome-adam-tree is much to be esteemed, euen of the best Gardiners, not in respect of his fruit (which indeed is more beautifull than profitable, in as much as it is neither good to eat raw, nor yet to preserue, but onely fit to wash the hands, or else to carrie in the hand) but to graft Citron-trees, Orange-trees, Limon-trees, and Assyrian Citron-trees vpon, as wee haue said in the second Booke, because they prosper maruellously vpon this tree, and bring forth verie quickly faire and great fruit, especially the Orange-tree. We haue entreated 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 anie other tast: and therefore it is vsuall to eat his flesh with salt or sugar, or with salt and vineger. The Limon differeth from this kind of Citron, because the Limon is lesse, in colour drawing toward a greene, bunching out both aboue and below, after the manner of womens nipples.

As for Pome-adams, they are round, twice or thrice as great as Oranges, not hauing a verie thicke rind, rugged, vneuen, and hauing manie clefts or chaps, verie manifestly appearing like to the prints of teeth. Some thinke they had this name giuen, of being the Apple which *Adam* did bite vpon in this earthly Paradise. They are rellished 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 the same vnder the ashes, and rubbe therewith the itching bodie, or anie part thereof, it will heale the same. *Pome-adams.*

Chap. XXVII.

Of the Figge-tree.

Figge-trees are either white, carnation, red, pale, or greene; and some also be blacke. There are some that beare before the cold 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 fruit, standing out with great bellies, as by name the blacke ones, of which yet further there is one kind that beareth long Figges, hauing almost no bellies, and these draw nothing neere in goodnesse vnto the great bellied ones, and those which are more short. All sorts of Figge-trees loue a hot ayre and countrey, a drie and stonie ground, insomuch, as that it ceaseth not bearing of excellent fruit amongst the heapes of small stones, prouided, that there be good store of depth of earth to spread and sinke downe his roots into at ease. Such a tree, as manie others, is apt for hot Countries: but hee that would haue of them to grow in cold Countries, must make choice of those which bring forth their fruit before the cold time of the yeare, and must couer it with some shield in Winter, and compasse it about the foot with fat ground, or dung of Oxen, or Asses, verie well rotted, for otherwise it will yeeld him no pleasure. This tree is so full of pith, and his fruit so moist, as that if you water it, the fruit will not keepe: but yet you may vnder-digge and digge 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 anie standing vpon the tree, for otherwise the fruit would not haue anie tast or sauour.

The Plant of the Figge-tree, which is of a branch or of shoots newly put forth, is planted in October and Nouember, in a warme and temperate ayre, but in Februarie, March, or Aprill, where it is a cold ayre: and yet the Genowayes doe plant branches 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 rind. Some say, that the Figge-tree planted amongst Vines, *To graft the Figge-tree.*

doth it no annoyance, which is in ſome part true, becauſe there is ſome conſent and agreement betwixt the Figge and the Grape, and both their woods are full of thick pith; and Raiſins or dried Grapes being wrapped in Figge 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 Figge-tree caſteth out ſuch large branches and broad leaues, as that the ſhadow thereof doth hurt the Vine. There are ſome low dwarfiſh Figge-trees, 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 indeed can doe ſmall harme vnto Vines ſtanding amongſt them: but hee that troubleth not the Vine ſtockes with anie kind of tree at all, ſhall doe better than hee which doth otherwiſe.

If you deſire to haue low Figge-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 ſhoot of the Figge-tree before it bud, wrythe his top with your hand, ſet it, the wrythen top downe in the earth, and the end, where it was cut, vpward, and out of the earth, it will put forth manie ſmall boughes all about the pot which will beare pleaſant fruits, the tree continuing to remaine alwaies low. You ſhall haue early Figges, if you water the Figge-tree with oyle and Pigeons dung: and on the contrarie, late ones, if you take away the firſt buds when they are growne to be as bigge as Beanes.

The Figge-tree the elder it is, the more fruitfull it falleth out to be. It is verie 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 Quicklime, or caſt old Vrine, or the lees of Oyle there about the place. It will not be loſt coſt to annoint the ſtocke with the iuice of Mulberries: or if you ſpread and loame it ouer with red Fullers earth when it is a full Moone: or if you hang at the branches of it young Figges newly put forth. Furthermore, Figges will grow with letters vpon them, and garniſhed with what ſhape you deſire, if when you graſt the Figge-tree, you write in the eye of the Figge-tree ſuch proportion as you would haue that the Figges ſhould beare: and beſides, without vſing anie ſuch curious courſe, Nature delighteth to ſport her ſelfe with this fruit, in ſuch manner, as that ſhee carueth out an infinite number of figures and indented notches full of pleaſantneſſe to behold, and theſe are tokens of the goodneſſe of the Figge: for as it is verie fat, the iuice doth conſtraine the skinne to fall into wreaths, and to quarter out a thouſand ſhapes. This is a maruellous thing, that although the fruit of the Figge-tree be verie ſweet, yet the leaues thereof are of a ſharpe and bitter taſt. Likewiſe the wood being burned, doth yeeld a ſharpe ſmoake, and the aſhes a verie ſcouring lee, and maruellous ſtrong, becauſe of his ſharpneſſe; as if the Figge-tree had beſtowed and bequeathed all the whole ſubſtance of his ſweetneſſe vpon the Figge, and had left neuer a whit for it ſelfe. This is alſo a maruellous thing, that the Figge-tree is not ſubiect vnto the Thunder-claps.

We haue oftentimes tried, that if you ſteepe two or three Figges in Aqua vitæ all night, that ſuch Figges eaten in the morning doe cure the ſhortneſſe of breath. The milke of the Figge-tree dropt into the eare, killeth the wormes therein. The leaues of the Figge-tree rubd, doe prouoke the Hemorrhoids. Looke for a more ample diſcourſe of Figges and the Figge-tree in the ſecond Booke.

CHAP.

Chap. XXVIII.

Of the Apple-tree.

THe Apple-tree which is 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 smal mould in the time of Autumne. It liueth and continueth in all desireable good estate in the hills and mountaines where it may haue fresh moisture, being the thing that it searcheth after, but euen there it must stand in the open face of the South. Some make nurceries of the pippins sowne, but and if they be not afterward remoued and grafted, they hold not their former excellencie: it thriueth somewhat more when it is set of braunches or shoots: but then also the fruit proueth late and of small value: the best is to graft them vpon wild 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 forth the Apples, called Apples of Paradise, as it were sent from heauen in respect of the delicatenesse of their cote, and greatsweetnesse, and they are a kind of dwarffe Apples, because of their stocke the Quince-tree, which is but of a smal stature. *The Apple tree*

The Apple loueth to be digged twice, especially the first yeare, but it needeth no dung, and yet notwithstanding dung and ashes cause it prosper better, especially the dung 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 libertie the boughes which intangle themselues one vvithin another; for it is nothing else but aboundance of Wood, wherewith it being so replenished and bepestred, it becommeth mossie, and bearing lesse fruit. It is verie subiect to be eaten and spoyled of Pismires and little wormes, but the remedie is to set neere vnto it the Sea-onion: or else if you lay swines dung at the roots, mingled with mans vrine, in as much as the Apple-tree doth rejoyce much to be watered with vrine. And to the end it may beare fruit aboundantly, 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 diligently with vrine, and to put to his root Asses dung tempered with water. Likewise, if you will 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 fruit till it be ripe, compasse the stocke of the Apple-tree a good foot 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.

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 fruit would be much martred, and the young sciences broken or bruised, and so the Apple-tree by that meanes should be spoyled of his young vvood 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 hereafter. *Gathering of Apples.*

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 verie harsh in eating, and these will serue well for hogges to eat.

Of

Of these apples likewise you may make verjuice if you presse them in a Cyder-presse, or if you squeese them vnder a verjuice millstone.

Vinegar. Vinegar is also made after this manner: You must cut these Apples into gobbets, and leaue them in their peeces for the space of three dayes, then afterward cast them into a barrell with sufficient quantitie of raine water, or fountaine water, and after that stop 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 vinegar, and put into them againe as much water as you haue drawne out vinegar. 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 Cyder, as we shall declare hereafter.

Neat 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.

Infinit are the sorts and so the names of Apples comming as well 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 some speciall qualitie, which others haue not: but the best of all the rest, is the short shanked apple, which is marked with spottings, as tasting and smelling more excellently than any of all 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 qualitie: for the kernells being taken out of it, and the place filled vp with Frankincense, and the hole joyned and fast closed together, and so rosted vnder hot embers as that it burne not, bringeth an after medicine or remedie to serue when all other fayle, to such as are sicke of a pleurisie, they hauing it giuen to eat: sweet apples doe much good against melancholicke affects and diseases, but especially against the pleurisie: for if you roast a sweet apple vnder the ashes, and season it with the juice of licorice, starch and sugar, and after giue it to eat euening and morning two houres before meat vnto one sicke of the pleurisie, you shall helpe him exceedingly.

Chap. XXIX.

Of the Peare-tree.

The Peare-tree. BVt the Peare-tree (being the most in request and precious (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 vvood and fruit of the one be more firme than that of the other, and that the Peare-tree bring forth his fruit late, as not before the end of Autumne, vvhen as all the great heat is alreadie past: notwithstanding you shall set it in the same ground with the Apple-tree: and in the first foure or fiue yeares of his grouth, you shall lay it open at the foot, a litte before the end of December, vncouering it euen vnto the rootes, which you shall shaue and trim with a knife bowed againe: and in the end of Ianuarie you shall couer it againe with his owne earth mingled with good made mould, keeping from thence forward his place well weeded, the foot verie neat and cleane, and the stocke verie well freed from intanglements of boughes so farre as the hand can doe it, and throughout verie carefully cleansed from mosse, snailes, and caterpillers, husbanding and ordering the earth at the foot of it euerie two yeares at the beginning of Winter: for the fruit which the Peare-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 grauelly ground, is but of a starued growth, bearing

ring a ſharpe, ſmall, and ordinarily a ſtonie fruit. The kernels are ſowne in the Nurcerie, as thoſe of the Appletree, 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 than the Apple-tree. It groweth alſo of a branch well choſen: and he that will haue it ſo grow, muſt plant it in September and October in hot Countries, but in cold Countries in Februarie and March, and in temperate Countries it may be 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 young plant in the Nurcerie, and in ſuch curious ſort maintained and ordered, as hath beene ſaid, as alſo if it be remoued ſome three yeares after, affoording 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 than vpon anie of theſe, for ſo it becommeth of a better nature. It is knowne by prooſe, that the Peare-tree grafted vpon a Mulberrie-tree bringeth forth red Peares: and if it happen that your Peare-tree bring forth a ſtonie Peare, you muſt remoue the earth from the foot, and powre in vpon the rootes euerie day, for the ſpace of fifteene daies, the lees of good old wine.

Peares muſt not be gathered before the later end of Autumne, when the great heat of the yeare is paſt, becauſe their moiſture being weake, and in ſmall quantitie, the Sunne ſuffereth not that it ſhould come vnto anie good conſiſtence, before ſuch time as the ayre begin to turne and change into coldneſſe: and therefore (ſaith *Theophraſtus*) this is the onely fruit-tree that ripeneth 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 dew be fallen at the leaſt three or foure times vpon them, becauſe it ſtrengtheneth them greatly, to their better enduring and laſting, and encreaſeth their goodneſſe. But in anie 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 anie manner of meanes whatſoeuer, but to chuſe 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, ſpoyled, or hurt, from amongſt the faire, ſound, whole, and vnhurt ones, that ſo they may be layed vp to keepe in ſuch ſort as wee will declare hereafter in his place. *To gather Peares.*

Although generally, and without ſaying anie thing of anie particular by way of compariſon, the Apple be farre fuller of iuice, and for the moſt part more ſound than the Peare, notwithſtanding, if one ſhould ſtand vpon the taſt, the Peare is commonly more pleaſant and better reliſhed, and more contenting and agreeing with ones taſt, eaten in his ſeaſon, raw, roſted, or preſerued, than the Apple: wherefore I am aſhamed, that men giue not themſelues to plant moe Peare-trees than Apple-trees, ſeeing that beſides the reaſons alledged, the Peare-tree, of all other fruit-trees, is the faireſt, ſtreighteſt, and couering no whit ſo much ground with his ſhadow as the Apple-tree doth, bearing alſo his fruit almoſt euerie yeare, where the Apple-tree is but a iourney-man, bearing one yeare, and not another.

There is a drinke made of Peares, called Perrie, whereof we will ſpeake: as alſo vineger of wild Peares, as hath alreadie beene ſaid of Apples. *Looke in the Treatiſe of Perrie.*

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 manie Muſhromes, that they may rid their ſtomacke of ſo great a load, there is nothing better than to eat Peares: for the Peare by his weightineſſe and aſtringent iuice maketh the Muſhromes, eaten and lying in the bottome of his ſtomacke, to deſcend and fall downe from thence.

CHAP.

Chap. XXX.

Of the Medlar-tree.

The Medlar-tree.

CErtaine it is, that the Medlar-tree groweth into a thicke ſtock: it endureth the cold ayre eaſily, and yet delighteth beſt in a hot or temperate ayre, and in a ſandie 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 layed to the foot of it earth mixt with aſhes. It may be 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 middeſt 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 leaneneſſe of the barke would not be able ſufficiently to nouriſh it.

If you graft it vpon a Quince-tree, the fruit will be verie 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: and yet it will yeeld a fairer without all compariſon, if you graft it vpon the hawthorne, vvith which it is joyned in exceeding familiar and friendly league, alſo the fruit 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 verie little ones. If the vvormes aſſaile the Medlar-tree, you muſt water the ſtocke with vinegar, 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 boyled the roots of Parſly, doe breake and conſume the ſtone as well of the reines, as of the bladder. Looke into the ſecond 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 juice of Roſes, to lay vpon the bellie in the great fluxes of the ſame, and vpon the breaſt for the ſpitting of bloud.

Chap. XXXI.

Of the Mulberrie-tree.

MVlberries grow vpon a certaine kind 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 ouerpaſſed, vvhereupon it is called by the name of ſage or wiſe, wittie, and prouident; it putteth not forth 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 ſorts, the one vvhite, becauſe of the white Mulberries; the other blacke, becauſe of the blacke or red Mulberries which it beareth and bringeth forth: which though they reſemble one another in this, that both of them doe put forth their leaues later than any other Tree, yet notwithſtanding they are vnlike in flowers, leaues, and other conſiderations. For the blacke doth not onely bring forth a farre fairer and better reliſhed fruit, and that of greater aboundance of liquor than the white: but it hath beſides a thicker ſtocke, and a greater and harder leafe, it groweth verie hardly and

and with much adoe being planted, and it 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 fiences, 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 euerie where, as well planted of shootes, and propagated, as sowne: both the one and the other doe loue a hot ayre, or at the least a temperate, a ground that is fat, and well battled with dung, and labour at the foot, and to be kept cleane from mosse and caterpillers, and without any dead wood. They are planted, especially the white, either of shoots or of roots, or buds, and that in October and Nouember, euen in like manner as the figge-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, wild peare-tree, cornaile-tree, elme, or white popler (and then they will beare white mulberries) and this must be in the cleft; and vpon the figge-tree in the scutcheon-like graft: they may also be grafted vpon themselues, and the one vpon the other, as the vvhite Mulberrie-tree vpon the white, and the blacke vpon the blacke, and that chiefely and principally after the pipe or flute-like fashion: in what manner soeuer you graft them, the grafts must be chosen of a good thicknesse, and from such Mulberrie-trees as beare fruits full of good seed and kernells. It would be but labour lost to sow them vpon kernells in the nurcerie in this cold Countrie, for besides that but a few Mulberries haue seed, 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 farre 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 hennes may eat them when they fall downe, because this victuall doth fat and feed them verie 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 Luckes, 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: whereupon it is come to passe, that there are to be seene in many places about the said townes of great Mulberrie-trees, as it were little wings of forests, the said Mulberrie-trees being planted after a just 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 yearely for the purpose before spoken of; for as for the fruit, 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 forth fruit, of the value of three halfe pence.

The wood of the Mulberrie-tree is good to make chests, forkes, and compasses of; and such other workes as must yeeld and be pliant: it is also good about ships and boats.

Mulberries must be eaten before all other meats, and that without bread, or else but with a verie little, because if they be mixt with other victualls they doe but cause them to corrupt: it is true that they coole and moisten verie much, and doe also loosen the bellie.

Mulberries put into a glasse vessell well stopt and couered with their juice may be kept a long time.

The juice of Mulberries halfe ripe mingled with honie of roses, is a singular remedie for the inflammations of the mouth and throat, as also for the putrified teeth and exulcerated gums.

CHAP.

Chap. XXXII.

Of the timely Peach-tree.

The timely Peach-tree.

BVt now to ſpeake of the timely Peach-tree, it beareth a verie 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 wind: they likewiſe craue no other manuring than that of their owne leaues, and content themſelues to be planted three or foure fingers deepe in the ground: but and if they lye verie 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 wind 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 Ianuarie or in Februarie. It may be grafted verie vvell 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.

Oyle of the flowers of the timely Peach.

If you fill vp a great companie 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 foot 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 oyle 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.

Chap. XXXIII.

Of the Walnut-tree.

The Walnut-tree.

AS for the Walnut-tree, it is a tree verie common, and ſufficiently knowne in all parts, ſo called by reaſon of the annoyance that it worketh others which are neere vnto it, as alſo the places where it is planted, men, yea and the verie beaſts: in ſo much as that it is proued by experience, that if a man doe ſleepe vnder it, at his awaking he ſhall find a great heauineſſe 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 roots (as well as the ſhadow) ſtretching and ſpreading themſelues farre, 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 eſpecially 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 be gotten of the husbandman: in as much as it needeth no great dreſſing or prouiſion for the maintenance of it, it ſuffereth and beareth injuries of thoſe which oppreſſe it, and yet neuertheleſſe extendeth and yeeldeth his fruit 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 day, as ſhall be declared in euerie of his particular properties. It eſpecially delighteth in a fat, mouldrie, light, and (in a word) in a good corne ground, the husbandman likewiſe delighteth in ſuch a ground: but the Walnut-tree refuſeth no

no kind of ayre or ground, for it can verie well endure to beare and suffer much. For the planting of it, you must make choyce of such walnuts and trees as beare abundance of fruit, hauing thin shells, and a vvhite, full, and thicke kernell. And to make it grow, you may digge the nut into the earth, the pointed end downeward, or else plant it of the shoots that are faire growne, and that in Nouember, and throughout all December in hot countries; but in Februarie and March in cold countries; and in temperate countries, in which of the two seasons you vvill. But such as would haue it to grow of the nut in Nouember and all December, must obserue and see that the nut which they would burie in the earth for this purpose, be but a yeare 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 foure or fiue daies aforehand, in some childs vrine, or else (as I gesse) in cows milke: for the tree that shall grow thereof, will beare his nuts as little displeasing either in eating or in the oyle thereof, as if it were the fruit or oyle of sweet almonds.

To plant the Walnut tree.

If you would haue this tree to grow faire, and full of nuts of a good tast, you must remoue it, but let it be possessed of the earth where it grew either of a graft or otherwise: and in remouing of it, some find it not good that the small rootes should be cut away as it is vsed in other Trees: both because the Maister-rootes doe gather footing and strength thereby, as also for that being as it vvere relieued by such shootes, vvould become more strong and more able to pierce the earth, and to sucke and suppe vp greater quantitie of the moisture of the same. I could be of mind, that when it is remoued (which must not be but when it is two or three yeares old) there should be taken from it at that time whatsoeuer surplusage and surcharge of roots, euen so manie as may be tearmed bastard or by-roots, and not of the master or maine ones: for as for the cutting off of the ends of the great roots, that is done but for the opening of their mouth, that so they may the better sucke in the moisture and iuice 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 remoue it, they must be digged of a great depth and widenesse, and be well stirred round about, and set distant thirtie or fortie foot one from another, that so it may the better spread forth his branches, which are wont to couer and occupie a great deale of roome round about it: and if they should be anie neerer one vnto another, their boughes would grow one into another, whereas they craue to haue their sides free and open. And this is the reason why they should be planted vpon the borders of grounds lying vpon high wayes: for by this meanes the great compasse which their branches take, doe not hurt seed grounds, or not aboue halfe, and by this meanes the looking-glasse wherein the husbandman may behold such hinderance and disaduantage as might come by scarcitie that yeare, shall not be farre off from him or his hinds, vvho hold it for certaine, that great store of Walnuts doth presage great spoyle of corne. To set a Tree of some other kind amongst them, is no more profitable than 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 vvith their great roots, vvill robbe it and eat it out of food and sustenance euen home to his owne doores, and couering it aboue vvill take from it both the Sunne, and the libertie of the ayre. But in as much as the things of this vvorld are so framed, as that there is nothing vvhich hath not his enemie, you must beware of placing the Walnut-tree either vpon seed or plant neere to the oake, as also not to set it in the place where any oake hath stood at any time before: because that these two Trees haue a naturall hatred one vnto another, and cannot couple or sute together.

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.

The Walnut-tree is grafted in Februarie 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 anie other tree than vpon it selfe, because it abhorreth the companie 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

The grafting of the Walnut tree.

 are

are fallen, and yet better in Nouember: but in cold places in February and in March: and at either time in temperate places.

The beaten walnut-tree becommeth fruitfull.

This is a maruellous thing of this tree, that the more it is beaten yearely, the more fruit it beareth the yeare after following, although the boughes be bruſed 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 ſhells.

If you caſt and ſpread aſhes ſundrie times, and oft at the root, and vpon the ſtocke of the tree, the nut will haue a more tender ſhell, and a more brittle kernell. It vvill grow fairer, and beare fruit ſooner, if you ſtrike a copper naile into it euen to the middeſt, or elſe a wedge of vvood. It will not let drop any vnripe fruit, if you hang at ſome of the branches, or tie vpon his roots white mullein, or ſome rent and torne fuſtian taken out of a dunghill.

Walnut without ſhells.

Walnuts will grow without ſhells, if you breake the ſhell vvithout bruſing the kernell, and afterward wrap the ſayd kernell in vvooll, 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 drie away, if you ſtrike into the root thereof a verie hot naile, or a wedge of Myrtle-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 rind, and when they are gathered, they may not by and by be layed vp, but firſt dried in the Sunne.

The profit of the walnut-tree.

The wood.

The rind, ſhell, kernell.

The griſtle of the kernell.

The old nut.

The wood of the walnut-tree.

The profits that the Walnut-tree yeeldeth vnto his maiſter are infinite: for of it he may gather to make excellent preſerues, taking his nuts about Midſommer: it yeeldeth wood for the kitchin, by being lopt of dead boughes, wherewith it is oftentimes troubled: but in cutting off this dead vvood, care muſt be had not to cut it off round, becauſe it would be a meanes for to make way for the raine to enter in, and the vvet of the night would ſettle therein, and in traict of time rot it to the heart, but it muſt be cut biace, and with a ridge, that ſo neither raine, nor the vvet of the night may get in, or reſt vpon it. It giueth a rind which is good for the things ſpoken of hereafter: it affordeth ſhells, which make good aſhes: it affordeth a kernell to be ſerued at the table, ſeruiceable in the kitchin, and in lampes: and furthermore, of the droſſe of the kernell ſome make candles, in ſuch countries as where the oyle is much in requeſt, as in Mirebalois, and thereabout: it affordeth 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 vvine, doth by and by aſſuage 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 doe good ſeruice: for and if you burne it lightly, or ſqueeſe it out eaſily with a hot yron, the oyle that then wil come forth of it, is ſingular good to take away blewneſſe of ſtrokes, whether about the eyes, or elſewhere in the face or other part of the bodie: 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 would make any faire and pleaſant worke, becauſe it is liſted and ſmooth of his owne nature.

The ſmall buds of the walnut-tree (called of the Latins *Iuli*) appearing in March, being dried, and after powdred and drunke with white vvine, the weight of a French crowne, are exceedingly good in the ſuffocation of the matrix. The oyle of the nut drunke to the quantitie of fiue or ſixe ounces, doth cure the colicke: if you mixe a little quicke lime amongſt the oyle of nuts, it will make a ſingular liniment for the ſwellings and ſhortneſſe of the ſinews. The old oyle of walnuts cureth the falling of the haire called Tinea.

The rind of walnuts.

If you pill off the greene pillings of the walnuts, and caſt them into water, and after caſt this vvater vpon the ground, there will grow from thence great ſtore of wormes, good for fiſhers: if you boyle the pillings in a caldron after they be fallen from

from the Tree, as opening of themselues, and rubbe any kind of white wood whatsoeuer with this water, it will turne to the colour of the Walnut-tree, but more faire and beautifull.

Some steepe the barke of the roots of Walnut-trees in vinegar, 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, twentie leaues of rue, and one graine of salt. *Mithridate.*

The walnut closed vp in a hen or capon set to the fire to roast, causeth the said hen or capon to be the sooner roasted. *To boyle a capon.*

The distilled vvater of vnripe Walnuts, gathered about Midsommer, is singular good to driue away tertian agues, if one take about some foure or fiue ounces of it. *Tertian agues.*

The Walnut either new or drie (but yet the drie somewhat lesse) is of hard digestion, causeth head-ach, and hurteth the cough and short breath, and therefore it must be vsed sparingly: steepe whole walnuts, pillings and shells and all, in a sufficient quantitie of water, vntill such time as that their shell be sufficiently softned and moistened, and that the kernell may be pilled easily from the thin filme that couereth it ouer, as it falleth out in greene walnuts: this done, take the kernells so pilled, and let them steepe in a pot vvell couered in verie good Aqua-vitæ; giue two daies after, two or three of these kernells 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 stayed, and it is a thing well proued. And as for the manner of keeping and preseruing of them, we will speake in his fit place.

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 brayed, and after take it away, and cast it to a hungrie cock or hen, if the same eating it die not, it is a signe that the dogge 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 meet within three daies. *The biting of a mad dogge.*

Chap. XXXIIII.

Of the Oliue-tree.

NOw we come to speak of the Oliue-tree, which is for the most part small, thicke of leaues, and round, 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 ground, for in many places they grow vpon the thin green swarth or turfe that couereth the rocks, & vpon the ground hanging vpon the sides of some great steeres; thus you may see how the oliue-tree disposeth of it selfe euerie where, how vnfitting and vnlikely soeuer that the ground be, prouided that it haue a warme ayre, and Easterly or Southerly wind at command. He that would carefully appoint it 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 soyle and seat as the vine, for it contenteth it selfe with a great deale lesse than the vine vvill. If you giue it ground that is good and fat earth, and the Sunne and Winds, which it delighteth in, in other places, doubt not but it will doe 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 if he come

where he may but haue the ſmell of it, he is ſtuffed as full as the greateſt glutton in all Lymoſin: ſo the Oliue-tree being once ſeiſed in his tallance of a good piece of ground, contenteth it ſelfe, and beareth fruit handſomely. As concerning the planting of it vpon the North in hot Countries, and there ſeating it vpon the toppes of mountaines, or leſſer hills, or vpon the South in cold Countries, theſe are but troubles and paines without anie 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 encreaſe it ſelfe by ſhoots which it putteth forth at the foot: for being pulled vp vnhurt, and planted elſewhere, they grow vp verie ſpeedily. And to prepare them a faire place to grow in, you muſt digge them pits where you mind to ſet them, a yeare before hand, of foure foot depth: and if you cannot haue holes made readie for them ſo long before, but muſt be conſtrained to ſet them downe in new digged ones, then you muſt ſeaſon and purifie the ſaid 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 yeare long. Some would, that it being prickt downe of a branch, it ſhould not be ſet in ſo fat a ground, becauſe the oyle 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 wil be husbanded euerie yeare for the ſpace of a great circle round about the foot: for indeed, he that tilleth and dreſſeth his Oliue ground yearely, doth a great deale better than he that doth not. In anie caſe it would not haue the rootes ſcanted of libertie, but to ſpread and lie at large. And if you beſtow any manure vpon it, being the thing it loueth well, then beſtow vpon it Goats or Horſe dung well rotted, and that after you haue digged it about the foot, 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 foure or fiue yeares: neither then muſt you dare to be ſo bold, if that it haue not gotten a ſtocke as thicke as a mans arme: and taking it vp, take vp therewithall the greene turfe of the ground where it ſtood, and whereunto his roots 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 wild 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 neere 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 ſaid Vine: along the which muſt be ſet a ſtake or thicke prop to helpe it to beare vp the weight 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 vvere vined Oliues. Such a proofe is not to be miſliked, in as much as the variableneſſe of nature is ſhewed thereby, which is content to ſuffer her ſelfe to be drawne to bring forth a mungrell fruit or ſecond hermaphrodite, by the coupling together of two natures in one: but the end of ſuch experiments turne not to profit, neither for the preſeruing of the Oliue, nor for the drawing of oyle Omphacine, nor yet any other, for vvhich ends God ordayned and gaue vs the Oliue tree. And to ſpeake the truth, the mingling of kinds and differing rootes of Trees, (if it be not according to, and jumping 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 approued by reaſon:) becommeth rather a monſtrous birth, and an inforcement of nature, than any profitable impe either for the health of man, or for the ſauing and ſparing of it ſelfe. Hereof are ſufficient vvitneſſes, I know not how many ſorts of Apples, Peares, and Cherries, thus iumbled together by offering force vnto nature without judgement or reaſon: and but that they become ſomewhat admirable vnto the eye, they yeeld no profit vnto the bodie of any man, more

than

than to draine his purſe drie : except there be aduiſed judgement in making choyce of that thing and way which may be both for the aduauncement of the yearely 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 profit for the maiſter, if it be contayned in a reaſonable ſtature for height, and ſpread it ſelfe abroad, than and if it ſhould ſhoot vp and become verie long and tall. For if it exceed the height of ten foot and a little more, it is abated and hindered in the putting forth of ſo many bloſſomes as it would, and hath his boughes cruſhed in peeces which grow vp at that pitch, when the wind bloweth ſtrong, and thereupon alſo it caſteth his fruit in vntimely ſort, euen when it is verie 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 tempeſts, and abound the more in fruit : and if yet the Oliue-tree would be climing higher, then you muſt cut off ſuch aſpiring boughes or braunches, and this muſt be done after the gathering of the Oliues is paſt. It is true that the Oliue-tree muſt be eight yeare old, before you reforme it in the boughes growing ouer high, by cutting them off with a ſaw : but as for the ſhootes putting forth at the foot and along the ſtocke, you muſt not refuſe the cutting of them off how young ſoeuer they be. The profit comming both of the one and the other, is, that it aboundeth more in fruit : and this is the cauſe why ſome commonly ſay, That hee that husbandeth and ordereth it with care and taking of paines about it, helpeth it forward in the bringing forth of his fruit; as alſo he which manureth it, as it earneſtly craueth : but he that cutteth downe ſome boughs off from it, compelleth it by all manner of meanes to become fruitfull; ſeeing the nature of the Oliue-tree is ſuch (as *Quintilian* ſaith) as that it being cut off and made bare of boughs and high mounting tops, it ſpreadeth rounder and broader, and putting forth moe boughs, doth alſo beare the more fruit, becauſe the propertie of the Oliue-tree is to be ranke either in boughs or in fruit. It happeneth ſometime to the Oliue-tree, that it bringeth forth but one onely bough exceeding all other in beautie 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 conuey all his whole workemanſhip that way, and will leaue nothing for anie thing elſe; and vpon this, will barrenneſſe come in the end. And whereas the Oliue-tree craueth to be left bare and thinne of boughes, and then beareth more fruit, yet if the boughes be ſtricken 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 beat them downe with poles, but rather you muſt haue ladders borne vp vpon a Goats foot, 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 yeare after that they haue borne, and then the yeare after that they beare out of all meaſure, as in Portugale, and the oyle 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. Many times in drie or moiſt places Oliue-trees are ſpoyled, and become all ouergrowne 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 wild oliue-tree, or of ſome other oliue-tree that is fruitful, 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 wil become fruitful by the grafting in of this graft. Others in ſuch caſe doe vncouer the root, and renew the ſeat that it ſtandeth in. Againe, it may be remedied, and the foot not vncouered, with the lees of vnſalted oliues, with mans vrine that is old, or with the ſtale vrine of hogges.

The barren Oliue-tree.

The fruit spoyled.

It falleth out many times that the fruit is spoyled and lost by the naughtinesse of the ground where it is planted: and then it must be thus remedied. The Tree must be vncouered verie low at the foot round about, and quicke lime put into it, more or lesse according to the greatnesse 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: vvhen this happeneth, the stocke must be vncouered round about, and the lees of oyle mixt with sweet 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 spoyle and eat the roots, and the remedie 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 remedie 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 root 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 birds 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 oyle in this third booke.

Chap. XXXV.

Of the Date-tree.

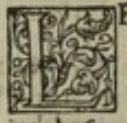
The Date-tree.

Concerning the Date-tree, it hath much a doe to beare fruit in this countrie, but and if it beare, yet it is verie late: it craueth to haue a hot ayre and countrie, 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, sandie, and vntilled or champian ground: and it is a plant either for Aprill or May, to be planted of a small plant with the root. 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.

Who so is carefull of his health, let him not eat any Dates, or else as few as possibly he can, because they cause the head-ach, obstructions, wringings in the bellie, and in the stomach. And yet notwithstanding this, they stay the flux of the bellie, and put into gargarismes, they cure the frettings and cankrous vlcers of the mouth.

Chap. XXXVI.

Of the Chesnut-tree.



Leauing the Date-tree, we come now to treat of the Chesnut-tree, which groweth verie great, high, and thicke, differing but a little from the walnut-tree, it beareth a profitable fruit, and hath not his like, whether you respect the shape, his nature, or the nourishment it yeeldeth vnto man, as is to be seene in Auuergne, Sauoy, Perigueux, and Lymosin, and especially in Lyonnoyse and Daulphinie, where the great chesnuts grow: in which countries, especially in Parigord, the greatest parts of the forests are of chesnut-trees, & an infinit number of people liue not of any other thing but of this fruit, eating it sometimes boyled, 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

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 rind and pilling, when it is taken away, with another rind 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 than drie, or standing vpon the South, for as much as it loueth the shadow better than the open Sunne, the valleyes better than the mountaines, a soft ground better than 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 than to plant them, and that in a well digged and stirred ground, being also neat and well batled, and that in the moneth of March, setting them in the earth a foot deepe, the sharpe end vpward, foure or sixe of them together, taken out of great and ripe Chesnuts, and euerie hole distant from another the space of a fadome: and two or three yeares after to plant them in some other places, fortie foot 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 root: for to make it grow of it selfe, by pricking downe into the earth some sience, 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 Gun-like graft, and that in March, Aprill, and May, vpon it selfe, or vpon the Beech-tree, or vpon the Willow, but it then ripeneth verie quickly, and beareth a fruit of a sharpe and vnpleasant tast.

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 fruit. 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 applyed: 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 ayre may get in, for otherwise they will be spoyled and rotten in a short time.

The faireſt, best fed, and most pleasant Chesnut of all others, is that which groweth in the Countrey 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 and other drinkes into, to build Bridges withall, as also Conduit-pipes, Pillars, and infinite 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 anie raine come to touch them, and serueth for litter for Cattell; which being thus turned into dung, serueth to manure withall. Many vse them to fill featherbed-ticks withall, and call them mockingly by the nick-name of Parliament-beds, because the leaues make a noise when you lye downe vpon them, when you rise vp from them, or when you moue your selfe anie 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 breasts.

Chesnuts with vineger and barly flower applyed in manner of a Cataplasme vnto womens breasts which are hard, doe make the same soft: stamped with salt and honey, they are applyed vnto the bitings of mad dogges: the rinds or skinnes thereof

are

are put manie times in lees, which are made to colour the haire yellow: their red inward rind, which lyeth next vnto the white kernell, being drunke the weight of two drammes, ſtayeth all manner of fluxes of the belly, and of bloud, 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, they cauſe the head-ach: they ſwell and harden the belly, and are of hard digeſtion: ſuch as are roaſted vnder aſhes, are leſſe hurtfull than the raw or boyled ones, eſpecially if they be eaten with pepper and ſalt, or ſugar.

Chap. XXXVII.

Of the Pine-tree.

The Pine-tree. THe Pine-tree craueth a ſandie, light, and ſtonie ground: and therefore it groweth willingly in out-caſt and contemned plots, ſuch as there are manie 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 yeares 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 keepe away the Sunne and the wind from the things that ioyne 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 ſhells.

Such as haue weake lungs, or are growne leane by ſome long ſickneſſe, muſt goe a taking of the ayre into the Foreſts, where there are good ſtore of Pines, becauſe ſuch ayre is verie profitable for them. Their kernels ſteeped in warme water, to take away their oylie qualitie and ſharpneſſe, being often eaten, doe cure the ach of the ſinewes, the ach of the backe, the palſie, benummedneſſe, 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 weake vnto the worke of venerie. They cure the gnawings of the ſtomacke, taken with water of Plantaine, or iuice of Purcelane. The new Nuts of the Pine-tree diſtilled in a Limbecke, make a ſingular water to take away the wrinckles 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.

Chap. XXXVIII.

Of the Plum-tree.

The Plum-tree. AS for the Plum-tree, it is a common and ordinarie tree, agreeing with all Countries of whatſoeuer conditions: howbeit the Damaske Plum-tree is more cheerefull, and pleaſeth it ſelfe better in a drie Countrie and hot aire than it doth elſewhere. The Plum-tree will grow eaſily, and encreaſe infinitely: for and if it be once brought into a plot of ground, in a ſhort time it ſeiſeth it ſelfe vpon the whole place: and if it be planted on the one ſide of a wall, it will leape within a ſhort time after vnto the other ſide of it, and ſo placeth the wall 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 farre as the compaſſe of his roots ſtretcheth, and watred in drie weather. It groweth vpon a ſtone buried

buried a foot deepe in the earth that is fat, and that in Nouember or Februarie, hauing steept the said stone for three daies space before you sow or set it in lee, or longer in a composition of Cinnamon water, if you would haue it to yeeld anie aromaticall smell: or else of a meere plant, hauing a root 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 pierced 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 sweet 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 sweet 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 tast. The fittest time to graft them, is in Februarie or in March, and then rather in the stocke than in the barke.

There is a certaine kind of scab which doth take hold of it, and that either by letting the gumme to stand and hang about it, and to wax old, which it casteth forth, 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 cold weather, and the mosse rubbed off with a rough Linnen cloth, or a mosse rubber of Horse-haire, and this at all times.

The Plum-tree out of frame.

There happeneth likewise vnto it an vndispoſednesse through the fault of the Gardiner, not casting the ground about the foot, or cutting off the rotten and corrupt wood; whereupon it turneth in and rowleth it selfe vp into small balls, sometimes in one place, sometimes 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 wholly to destruction: and therefore so soone as you shall see the sicke tree in this sort to crumple and runne vpon heapes, you must cut off verie cleane all the boughes thus diseased, whereof it would be murdered and killed, euen to the sound and whole branches, and withall to order & husband it in all good sort about the foot, to the taking away of this euill humor, which in this maner crooketh and causeth to turne round his wood.

The languishing Plum-tree.

There happeneth also sometimes, by reason of some secret cause, that it so languisheth, as that it giueth ouer to beare fruit: for the putting of it in heart againe, you must lay open his roots, and cast vpon them the lees of oyle mingled with water, or else the stale of oxen, or mans vrine, or cast vpon the roots the ashes of Vine branches throughly boyled.

All Plums in generall are cold and moist, more or lesse, the sweet ones lesse, the sowre and sharpe ones more.

Laxatiue Plums.

The sweet Plums haue vertue to loosen the belly, and yet they will purge more strongly, if at such time as when the Plum-tree is young, 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 sleepe, if you put into the said emptied places the iuice of Mandrakes, or Opium. Sharpe and tart Plums are giuen to stay the belly. There is great account made in Prouence of the Plums of Brignoles, by reason of their pleasant tast. In France throughout, and euerie where else, there is a speciall account made of Damaske Plums, which are of three sorts, the black, red, and violet colour, all of them prouing verie excellent in the Countrey 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 plumpenesse and pleasant tast. Furthermore, Dates are verie rare and scarce in this Country, namely, those which come neere to the Dates of other strange Countries, which are more pleasantly relished than anie other. Some likewise make account of Rhemish Plums dried, by reason of the pleasant tartnesse and sharpnesse which they haue.

Sleeping Plums.

Plums of Brignoles.

CHAP.

Chap. XXXIX.

Of the Pomegranate-tree.

The Pomegranate-tree.

Concerning the Pomegranate-tree, it requireth little husbanding, and yeeldeth ſmall delight to the ſight, by reaſon of his ill-fauored branches and boughs; ſaue ſo long as it is bearing his fruit, before it come to perfect ripeneſſe, 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 fruit being well conſidered, is a worke of Nature right admirable: there is not that raine, that ſcorching heat of the Sunne, nor yet almoſt that fading and decaying old age, which can cauſe it to forgoe his goodly ſhew of Rubies: and yet notwithſtanding, how famous a thing ſoeuer it be, it groweth without anie daintie or delicate handling and looking to, and that ſometimes at the foot of a wall, ſometimes in the midſt of a heape of ſtones, and ſometimes amongſt the hedges by high waies ſides. It is true, that it craueth a hot Countrey, 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 like vnto the Oliue-tree, whereof we haue ſpoken before. And if it be in ſuch a Countrey as is fit for it, you need not to thinke either of the digging or vnder-digging of it: for it reckoneth not of ſeeing it ſelfe ſet in a great heape of ſtones, as neither to breake croſſe-wiſe through a ruinous wall, neither ceaſeth it for anie ſuch thing from bringing forth his good and pleaſant fruit: but in cold Countries, where it hardly groweth, it would be digged and husbanded about the foot twice a yeare, that is to ſay, in Autumne and in the Spring. It will grow either vpon roots, 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 roots, you muſt chuſe 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 plants, but I cannot find that this way of thruſting it downe thus into the earth, doth proue to anie 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 Lead, 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 through bagges made for the purpoſe: ſome cauſe them to be put into veſſels vntill it be well fined; in the end they powre oyle 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 clay, 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 maruellouſly that hath the bloudie flux. 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 ſtay the bloudie flux, the ſhedding of nature, the flux 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 dramme of fine powdred Frankincenſe, and two drammes of this powder taken euerie morning, doe ſtay the whites.

Chap. XL.

Of the Ceruise-tree.

THe Ceruise-tree, as well the male as the female, delighteth in a cold, moist, and mountainous place, but in a hot and plaine place it thriueth not. It must be sowne of the stones: and some plant it of shoots 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 often digged and watered: and let him that can conueniently, lay dung vnto the foot of it, mingled with ashes, and that in verie deepe pits. *The Ceruise-tree.*

Ceruises are gathered in Autumne before they be ripe: they are gathered by handfuls tyed together: or else they are orderly laid vpon straw to ripen them: for otherwise they are not fit to be eaten, because of the harshnesse.

The wood of the Ceruise-tree is verie solide, close, and hard, and therefore in great request to make Tables of, and other house implements, as also to make goads and whips for Neat-heards.

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 flux of the bellie.*

He who hath sometimes beene subiect vnto the biting of a mad dogge, or otherwise, must not sleepe or rest vnder the shadow of the Ceruise-tree: for if hee doe, it will hazard him to cast him into his former madnesse againe: Such is the force of the Ceruise-tree, to raise vp, renew, and reuiue a qualified and appeased madnesse. *Madnesse.*

Chap. XLI.

Of the Corneile-tree.

AS for the Corneile-tree, which the Latines call *Cornus*, (so called, because his stocke is of such knottie and solide wood, 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 planted or grafted after the manner of the Ceruise-tree. In anie case it must not be planted neere vnto where Bee-hiues stand, neither suffered to grow there of it selfe: because that the Bees hauing once tasted of the flowers thereof, 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 or fruit thereof, doe fall suddenly into a costiuenesse. The fruit of this tree 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 fruit 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 verie singular in bloudie fluxes, and the staying of womens termes. *Of the Corneile-tree.*

Chap.

Chap. XLII.

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 countrey of Prouence, eſpecially about Dupont, S. Eſprit, and in Languedoc. This is a tree of great reach and compaſſe both for his height and breadth, and naturally it loueth to be in hot Countries, not ſo much ſeeming to regard the ſoyle wherein it is ſet: likewiſe in manie places of the ſaid Countrey it is ſeene 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 ioyning to the ſide of ſome wall, whereby it may haue the reflex of the South Sunne, of which you muſt looke to giue it the full fruition before all other things. Sometimes it groweth of kernels, three or foure of them being put into the earth together, and their ſharpe ends downeward, the holes muſt be a foot 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 cold. And when it is once growne vp, and become ſomewhat ſtrong, which will be about the terme of eighteene moneths, or two yeares after, then you ſhall remoue it into ſome other place, with ſuch obſeruations as haue beene deliuered concerning others, and concerning the Countrey, as it ſhall fall out, hot or cold. Some likewiſe plant it of the root, when it riſeth vp into ſhoots, which haue ſmall threddie and hairie roots, looſing and pulling them vp gently, together with ſome of the principall roots of the tree, for feare of parting them and their threddie roots, planting them in pits prepared ſome fifteene daies before, in a light ground, and that in March. As concerning their ſiences, 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 taſt, as generally all manner of fruit is, being grafted vpon a tree of his owne kind. Some will ſay, that it reioyceth during the time of Winter to bee compaſſed about with a heape of ſtones, and when Summer commeth, to haue them taken away; and that it craueth likewiſe to haue Oxe dung layd vnto the roots of it: but in thoſe Countries where there are ſuch great ſtore of Plants, this piece of ſeruice is altogether neglected, which notwithſtanding is the meanes to cauſe great ſtore of faire and good fruit.

Chap. XLIII.

Of the Bay-tree.

The Bay-tree.

AS for the Bay-tree, it is verie common, ſeeing it groweth in anie ground, as ouerthwart the Conie-burrowes and heapes of ſtones. It groweth manie times from vnder the foundation of walls. It is likewiſe to be a Countriman in euerie 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 indeed it muſt be planted in a fat, ſolide, and good ſoyle of earth, neere vnto ſome wall, where hee may haue the South Sunne to comfort him with a double comfort; and at the approach of Winter, it muſt be manured, ouer-

ouer-caſt, and couered with long ſtraw in the ſtrength of the Winter, or elſe well caſed and wrapped about with Mats. It muſt alſo be vnder-digged for the firſt foure or fiue yeares after his comming and bearing, and that in March and Aprill. And yet, if notwithſtanding all this paine and induſtrie taken, it ſhall happen to be extreamely and rigorouſly entreated 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 foot, and ſtrengthen it there, in the moneth of March, if that the cold put forth and begin to be dealing the ſame yeare: for the dung will haue kept the roots and claſping gripes in force and whole vntouched, and ſo it will not fayle to put forth with ſpeed new ſhoots and ſprigges in aboundance, which will be fit to multiplie and propagate the Winter following in the ſaid moneth of March, at which time the ſappe draweth vp vnto the barke, if ſo be that you deſire to haue great ſtore. It taketh alſo of a branch, foreſeene 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 foot vnder ground, and foure berries together: and when one yeare is paſt, you muſt plant it where you will haue it abide. In anie caſe you may not ſow it or plant it neere vnto anie of the Lattice-worke or climbing and running frames made for the Vine, much leſſe neere vnto the plant it ſelfe, becauſe that the Bay-tree is altogether enemie vnto the Vine, as well in reſpect of his ſhadow, as of his heat, which draweth away all meanes of growth from the Vine. Looke in the ſecond Booke.

The leaues of the Bay-tree doe preſerue, keepe vncorrupt, and make faſter the Fiſh that is fryed, eſpecially that which is fryed in oyle, laying them by beds one vpon another. They performe in like manner the ſame good vnto dried Figges, Damaske or Frayle Raiſins, if you ſtrew of them amongſt the ſaid Raiſins in the Frayle.

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, doe 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 rubbed 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 manner doe Iuie leaues. The boughs 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 anie Bay-tree boughs, whether it be at the chamber floores, or elſe at the doores or windowes.

The tender crops of the Bay-tree, boyled with flowers of Lauander in wine, doe heale hardneſſe of hearing, and noyſes 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 bayes of the Laurell-tree verie hot vnto the top of the crowne of the head, with equall weight of Cummin, Hyſſope, Organie, and Euforbium, mixt together with honey. The bayes of Laurell pounded with Wheat-bran, Iuniper-berries, and Garlicke, heated in a hot frying-panne, ſprinkled with wine, and laid to the flankes, doe prouoke the retained vrine. If women with child, and neere their accompts, doe eat euerie night going to bed ſeuen Laurell bayes, or Bay-berries, they ſhall haue a more eaſie trauaile and deliuerie.

Chap. XLIIII.

What ſpace muſt be left betwixt Fruit-trees when they are remoued.

The greatneſſe of trees is to be conſidered.

THat you may fitly appoint the ſtandings of trees, and their diſtances one from another, in reſpect of the trees themſelues, compared one with another: you muſt firſt conſider the height, fulneſſe of the leaues and boughes, and ſpreading of the ſame, according as euerie ſort of tree doth ordinarily grow and attaine vnto: and beſides the ordinarie, how by place affoording aboundance of nouriſhment, the tree may exceed and ſurpaſſe it ſelfe in height and breadth, for that fruit-trees would not be encombred aboue head, or ouer his top, but would haue the breathing and blowing of certaine winds at libertie, and with ſufficient ſpace fauourably 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 breadth 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 wind toſſeth them, how greatly ſhould the exceeding greatneſſe of the neighbour trees diſturbe and trouble one another, if care and aduiſe be not taken in the firſt planting of them? And therefore you muſt haue regard and caſt an eye about you for this cauſe, that ſo you may well and profitably appoint out your diſtances and ſpaces betwixt one and another: for in good and fat grounds, where trees may grow much, you muſt allow more ſpace than 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 mind to plant thicke and groſſe trees all on a row, and vpon high waies, and againſt the hedges of fields, then you muſt leaue them ſome fiue and thirtie foot diſtant 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 fiue and fortie foot ſpace betwixt euerie two, and as much betwixt one ranke and another, that ſo the boughes of each tree may the more freely ſpread themſelues euery way vpon their emptie and vacant ſides.

As for Peare-trees, Apple-trees, and others of that bigneſſe, if you plant onely one row by the ſides of your field-hedges, or elſewhere, it will be ynough to allow twentie feet betwixt one and another: but and if you ſet two rowes vpon the hedge of your Garden allies, then you muſt allow them ſome fiue and twentie feet betwixt one and another euerie way ſquare, in ſuch ſort, as that as well the alley as the ſpace betwixt euerie two trees on either ſide may make a perfect ſquare of fiue and twentie feet 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 void 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 alleyes 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 afterwards; and the reaſon thereof is, becauſe they draw away and eat vp the iuice and nouriſhment of the earth, vvhich ſhould wholly bee imployed in growing and furthering of thoſe which are intended for the incloſing and defending of the alleyes.

If you ſhould goe about to plant a whole Field, or quarter of your Garden, with great fruit-trees, ſuch as before named, you muſt then ſet them checkerwiſe, and allow them

them betwixt twentie and thirtie foot of distance the one from the other euerie way, that is to say, from tree to tree, and from row to row.

Plum-trees, and other trees bearing stone-fruit, and being of the like size of bigness, will not admit vnder foureteene or fifteene feet distance one from another in euerie row: but and if you will onely plant two rowes vpon the sides of your garden alleyes, then they need not aboue six foot 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. *Plum-trees.*

Sweet Cherrie-trees and bitter Cherrie-trees doe looke to haue allowance of distance betwixt tenne and twelue foot: 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 tenne. *Sweet Cherrie-trees.*

The lesser trees, as Cherrie-trees, Quince-trees, Figge-trees, Hasel Nut-trees, and such like, are sufficiently allowed, if they be set distant betwixt eight and nine foot in your greene Grasse-plot, or Orchard, and betwixt fiue and six in Alleyes and Garden rowes. When you would plant two rowes, either of them of seuerall kinds 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. *Common, or the lesser sort of Cherrie-trees.*

Chap. XLV.

Other precepts about the planting of Fruit-trees.

IF you plant Peare-trees and Plum-trees one with another, it will be better to set the Plum-trees towards the Sunne, for Peare-trees doe better endure the want and with-holding of the same.

When you shall take vp a tree to plant it elsewhere, take a great circle round about the foot, and rayse together with the root as much of the earth cleauing thereunto as you can: for besides that thus the roots doe not loose their bed, they find themselues otherwise also infinitely better contented, when they carrie with them the earth alreadie reclaimed and familiar vnto them, than and if they should be constrained in their new lodging to stoupe and conforme themselues to the earth which they should there find. For as for watering of the roots, in pulling of them vp to the raysing 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 roots of the tree remoued: for the verie remoue doth astonish and blur them so, as that it maketh the points of their roots as it were blunt, and to haue their mouths stopt, so as that they can neither draw vnto them, or else goe forward themselues: so that if they find not the earth of their new lodging so light and crumly, as that they may pierce it without straining of themselues, and conuey themselues anie 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, neither yet the tree in remouing of it, nor so much as remoue it in a drisling time: and it is ynough 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 heed, 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 remoue it from a hillie place, into the like, or otherwise into a plaine: then you must look that the seat wherein you set it in, be defended in like manner from the winds, both below and on high, as it was in his first. *To remoue.* *To water.*

You must not plant the trees that haue beene browsed by cattell, or haue had their ends broken off; for they grow not so well, except you thinke it good to cut off the *Trees browsed with cattell.*

end of their tops and head, to ſee if that thereupon they will take and grow againe.

To plant trees without roots. You may plant trees alſo without roots, if they haue great piths, as the Figge-tree, tame Mulberrie-tree, Haſel-trees, and other ſuch like.

Pits. And as for the Pits wherein you meane to plant trees, you muſt make them ſix foot deepe in clayie places, but not ſo much in moiſt places: you muſt likewiſe make them roomethie and wide ynough; for though the tree that you ſhall plant, ſhould haue but ſmall roots, yet you muſt make it wide, that ſo there may ſtore of good earth be caſt in round about the root. 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 meet, that if your tree be old gathered, that they be watered and ſteeped at the foot two or three daies. If any of the roots of your trees proue too long, or to haue their barke hurt, then you muſt cut them off byas, and let the ſide that is moſt vnfurniſht be vnder when the tree ſhal be planted, for there will ſmall roots come forth 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 remouing of anie 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 wand or rod put out of them, there is no need that ſuch ſhould be cut vp on high, when they be remoued. The ſtocks of the Nurſerie which you intend to graft, muſt be verie well put forth into branches before they be remoued, 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 roots from being intangled one with another as much as you can, and make them all to draw downeward, not ſuffering anie 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 ynough, that the roots be laid in ſo deepe, as that the earth may couer them halfe a foot, or thereabout, if the place be not verie ſcorching and ſtonie: 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 conueyed vnto the roots of the tree.

When your trees ſhall be ſpread in the pits, and the roots thereof orderly layd at large, weigh downe vpon them eaſily with your foot, and after mingle well manured earth with a part of that about the pit, and ſtrew 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 anie wormes in the earth that you ſhall put in, then you ſhall mingle ſome lee aſhes therewith, to kill them, becauſe they might doe hurt vnto the roots. Afterward, when your pit ſhall be filled within halfe a foot, or neere thereabout, you muſt tread downe the earth well vpon and in the places about the roots, and it is farre better if it be drie in that place, than for to haue it wet.

To kill wormes.

The pricking downe of trees. But and if you pricke downe or plant a tree of a prop, ſtake, or pole without roots, 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 poſſibly enter without ſpoyling his barke: but when you driue in the ſtake, tye it in ſuch ſort at the vpper end, as that it may not cleaue in driuing.

CHAP. XLVI.

Of pruning, lopping, vncouering, and making cleane of Trees.

SLouthfull and negligent Hinds say, 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, and they will doe 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 seat, it being good, and according to the nature of the tree: but to say that wee 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 fruit 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 encrease will it repay you againe: and he 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 grow wood, must haue his branches tamed about the beginning of December, by taking away of them so manie as are superfluous, with the vnnecessarie wood, ouer tall and high boughes, and such as hinder it from making of manie buds to blossome and beare flower: in doing 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 behind 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 forth of new, and that so couragiously, as that it may surmount and ouergrow those which before did ouer-top it, and take away the Sunne from it: for the same reason, if the Sunne enter not in forcibly enough amidst the branches of a tree, but that some are still shadowed, it commeth to passe, that those shadowed ones doe not beare anie fruit; and therefore there is cause that it should be obserued and marked euer as it groweth, what branches there be that doe ouer-shew and drowne 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 wind, 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 should drie away. Young grafts may not be too soone pickt and pruned, least they should become too frolicke and lustie, putting vp still in height, hauing but a feeble bodie to beare so great a head: and therefore they must be let grow strong about the foot before you doe any thing vnto them.

To take branches from trees.

To make way for the Sunne to come to the trees.

It is likewise most certaine, that the dead wood of a tree doth cause other braunches 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 appeareth 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 young ones as the Sunne 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 venimous beast lurking at the foot of it, hauing bitten and wounded some fibrous part of the root: or else by hauing had some of the branches tainted and wronged by the spade or pick-axe in the laying of it open at the foot, or multiplying of it by propagation. And if it be meet that that should be remedied that is aboue the earth; then doe that also which is vnder the earth, and with greater care and diligence: for

To take dead wood from the tree.

What is meant by bourgening.

Exceeding heat of the Sun hurtfull to trees.

for the heat of the earth and dung doth engender 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 forth so great store of shoots and fiences, as that these doe make it to miscarrie, without hurting or taking anie nourishment from anie other of the trees: So that then hereby it appeareth, that there is need to digge trees at the foot in Winter vnto the verie quicke of the earth, and take away from thence whatsoeuer may threaten anie danger; and as for such number of fiences, 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 yeares to graft them. And here it shall not be amisse to note, that the fiences of Hasel-tree being remoued, bring forth the better small Nuts.

To order a tree in Winter.

In like manner, the tree must haue some recreation giuen it in Winter, after his great trauell in bringing forth of his fruit, and that in this sort: as by opening the earth, and laying his roots bare, that so you may cleanse them, and that the raine and the snow may fat them, which especially and principally happeneth in manie places that are hot, drie, and lying verie open vpon the Sunne in his scorching heat. 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 dogge, or other carrion, for to reioyce it withall, and some one or other scuttle full of good and small dung to lay about the foot of it: or on the contrarie, lee ashes, if so be that the ground be found too fat and full of wormes.

A dead dogge or some other carrion made fast to the foot of the tree.

The mosse of trees.

The age of the tree will make it to grow full of mosse: and if it be young, then too much moisture will make it mossie, as also too much drinesse. This disease feedeth vpon a tree, and maketh it leane, as the scab 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 roots, as hath beene said heretofore: as also to make it cleane in Winter with a knife of wood, or of bone, for feare that the mosse continuing in peace, winne the countrey, and in fine deuoure the whole tree.

The time to dig and cut off vnprofitable members from young trees.

He that will haue faire young trees, must digge about them euerie moneth, and cut off vnprofitable and noysome parts euerie of those times, after March and October, and so long, as vntill they be growne great: but when they are become great, they must not be digged ofter than thrice a yeare. In Winter, whether they be great or small, the earth must be taken from their feet, 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 wee haue said before. And in Summer, and when it is extreame hot, there must be kept and gathered a heape of coole earth about the foot of the said tree, to helpe it to auoid 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 sappe beginneth to rise vp into them, and when they thereupon begin to bud and blossome in signe of approaching Summer, 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 sappe 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 thicknesse of the weightie and great branches may not rend 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, cast the sawed dust vpon the cut.

To cut downe branches from old trees.

If you disbranch and prune your trees in Winter, leaue the stumpes sufficient long to cut them afterward againe in March and Aprill: but and if you meane to lop and disbranch your great and old trees, to the end they may grow young 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 sappe put vp againe: and in cutting or sawing of these boughs, leaue

their

their ſtumps with the ſtocke, that ſo you may graft vpon them new ſiences, 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 wonted cuſtome, you muſt not cut off all his boughes, but thoſe onely that are dead. Likewiſe you muſt vncouer his roots 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 end the juice of the earth may enter in that way: afterward, at the end of Winter you ſhall couer their roots againe with good earth.

Grafts broken.

When the grafts of three or foure yeare old are broken, brouſed, 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 than 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 than 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: and when you haue thus grafted the ſtocke this ſecond time, you muſt ſtill leaue remaining and not pull away the ſiences which put forth of the plants ſo grafted, vntill you ſee whether the grafts doe put forth 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 forth new wood, of ſome two or three foot length, if they againe put forth ſiences more than need, and thoſe about the parts which you deſire to cheriſh, and to bring to large growth, then cut away thoſe ſuperfluous ſiences, and that verie cloſe, euen in the yeare 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 ſhoots and grafts of the firſt yeare, if there be too much put forth, and to ingraft them in ſome other place: and about foure or fiue yeares after that they haue beene grafted, and therewithall the grafts well and cloſe growne to the plants; yet once againe goe ouer your former worke, and take away after the ſame manner whatſoeuer you perceiue of ydle remainder: for it is ynough for one tree to haue one good member for to make his ſtock or bodie of, and eſpecially thoſe which haue beene grafted ſmall vpon a graft, and thus it proueth 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 afford it larger allowance, according as you ſhal find requiſit and needfull, for the better couering againe of the clefts and cuts made in the plant.

To order and handle Trees that are grown vp.

When your trees ſhall begin to grow, you muſt gouerne and guide them well for three or foure yeares or more, namely vntill they be come 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 entrance thereunto.

Trees giuing ouer to grow.

If it come to paſſe that trees being yet young doe ceaſe to grow in thickneſſe, you muſt cleaue the barke of the ſtocke in foure all along, or elſe in fiue places, according as the tree ſhall be in thickneſſe, and after that, in a ſhort time you ſhall perceiue it grow maruellouſly.

To take away the Caterpillers neſts.

You muſt take from trees the drie leaues, which haue ſhut vp within them the neſts and egges of Caterpillers, and other ſuch like little beaſts, which are giuen to conſume, waſt, eat, and ſpoyle the leaues, tender parts, and fruit it ſelfe from off the tree: and beſides, doe 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

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the other ſorts of Fruit-trees. And it is needfull furthermore to rid the ſtockes of all galls and breaches which the Wormes or Piſmires haue made there, becauſe that vpon theſe occaſions might follow their death and ruine.

The time to cut trees. Trees may be cut from the firſt of Nouember vnto the end of March: and you are to giue order, that there may no gaſhes be made of great depth: and if you cut off the ſiences or ſhoots of the tree which bringeth forth no fruit, and that it be in the decreaſe and laſt quarter of the Moone, it will cauſe it to become fruitfull. And when the tree which you haue grafted, ſhall haue growne great, you may take away his ſiences, and leaue remaining your grafts alone.

To water trees. For the matter of watering of trees, they muſt not be watered except in time of verie great drought, and then not vpon their foot and ſtocke, 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, than with water: alſo wee ſee, that the fruits which grow in places that are not watered, are ordinarily more ſauorie, and keepe longer, than thoſe whoſe earth and ſoyle is drencht with water, howſoeuer that ſometime the drineſſe thereof be ſuch, as that it doth hinder and keepe the fruit from comming vnto his perfect growth and accuſtomed greatneſſe.

Much fruit vpon a tree. If that trees for ſome yeares together doe beare more fruit than ordinarie, inſomuch, as that it is as much or more in number than 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 yeare after it will bring forth moe than and if thoſe ſhould be let alone, it would doe.

Chap. XLVII.

Of the curing of Fruit-trees.

EVen as all things that draw their force and take their growth from the earth, haue ſome perſeuerance of that which is good for them, as thoſe things by meanes whereof they liue: ſo they haue certaine ſpeciall and particular diſeaſes growing vpon them by reaſon of things that are contrarie vnto them, as either old age, or vvant, or ouer great aboundance of that which ſhould nouriſh them. Wherefore it is no maruell if Trees and euerie one of them doe now and then ſuffer inconueniences, and ſuch as if they be not quickly helped and relieued, they will not faile to die.

Sliuen or ſhiuered trees. All trees vvhich through force of wind or otherwiſe ſhall be clouen, ſhiuered, or ſliuen, muſt be cured with myre, ſheepes dung, and ſwines dung.

Weedes about trees. Weeds growing about trees, doe ſucke the nouriſhment of the earth, and they muſt carefully be weeded out, and the rind of the tree muſt be ſmoothed with a hedging bill, but not in ouerthwart maner.

The ſmall and dwarfiſh tree. When a tree groweth not in thickneſſe, and is long in putting forth of branches, and in riſing on high, after that you haue vncouered it at the foot, at ſuch time as hath beene ſaid before, you muſt cleaue aſunder many of his roots, 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 heed that you hurt not the barke. And in Sommer time when the earth is too wet, it will be good to digge the earth about the foot and roots of thoſe trees, which were not vncouered at the roots in Winter, and to mix therewith ſome thing to better the earth withall, whether it be dung or ſome good mould from ſome other place.

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You ſhall make the barren tree fruitfull, if you hang amongſt the boughes a bagge full of the ſeed of Roſes, Muſtard-ſeed, and the foot of a Weaſell. *The barren tree.*

The file is a diſeaſe in trees that fretteth their barks: wherefore you muſt cut away this infection verie neat and cleane at the end of Winter with a verie ſharpe toole, and after put vpon the wound or cut the dung of Oxen or Swine, and bind it to with old clothes, and keepe them alſo verie 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 cleaue thereto. *The file 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 juice: ſome others leſſe, as the Bay-tree, and others which beare ſowre and bitter fruits. Sometimes theſe wormes grow of the oldneſſe of the tree, ſometimes of hauing taken a blow. Therefore againſt ſuch wormes as vſe to breed 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 pierce 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 rottenneſſe that is within, and that with as much ſpeed as you can: after this, put into and vpon the cut an emplaiſter of oxe-dung or ſwines-dung mingled and ſtamped with ſage and ſome quicke lime, wrap it well and tie all faſt, and there let it remaine and abide ſo long as it can endure. *Wormes in trees.*

The lees of Wine, or grounds of Oyle, being caſt vpon the rootes of the Trees that haue the jaundiſe, or elſe are otherwiſe any way ſicke, doth them verie great good. *The iaundiſe in trees.*

There breed in Trees certaine ſmall beaſts almoſt like to Weeuils, and they are ſomewhat blewiſh or blacke, and certaine of them haue long and ſharpe pointed peakes or bills, theſe doe great harme to grafts and other young Trees: for they cut off young ſiences which are yet but tender, and put forth 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 verie ſoftly without ſtirring the Tree: for they let themſelues fall downe when one goeth about to take them, becauſe they cannot quickly betake themſelues to flight, and if they let not themſelues fall into your hand, then reach vp and take them vpon the ſiences with your other hand. *Weeuils.*

For Snailes and Ants, lay aſhes or ſaw-duſt of wood, or the meale of lupines at the foot 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 veſſells full of water at the foot of your trees: or elſe powre lees of wine round about them. *Againſt ſnailes and ants.*

When a tree letteth fall his fruit, you muſt compaſſe his ſtocke about with Iuorie, as it were with a crowne, or elſe with a plate of lead, or, which is beſt, you muſt vncouer the roots of the tree, and pierce 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 find any remnant or remainder of them behind, 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 wood when you cannot come by them with your hand, or, as little as can be, and cleanſe you trees well and throughly in euerie place, that ſo there remaine not any egges, then looke vnderneath at the feet of your trees, and ſee that there be no young ones, which can ſpin, and haue betaken themſelues thither, and ſetled themſelues betwixt the ſiences 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 young ones, then marke at the height of the day, their repaire, in which place you ſhall ſee them together vpon heapes, whether it be *Againſt caterpillers.*

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vpon the armes of the tree, or vpon the branches, from which you muſt either with old clothes, or elſe with ſome large and great leaues held in your hand, beat them and kill them euerie one, weighing hard vpon them with both your hands, 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 end they may not breed anie more, you ſhall tie and make faſt the branches of the Sallow about the foot: Theſe branches will ſerue likewiſe to make this vermine fall downe ſtarke dead. There breedeth likewiſe a little worme, which the inhabitants of Bourdeaux 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 yron wyre, probing for them on euerie ſide of the tree.

The euerfruitfulnes of a tree. When a tree beareth too much, it muſt, after that it hath beene vncouered at the roots, haue diuers of them (ſo they be not of the principall) clouen, and the water that is within them let out, if there be anie at all in them: and this will be as good for them, or better, than letting of bloud 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 young trees in the kernell Nurſerie, 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 layd long and croſſe-wiſe.

Lame trees.

To haſten a tree his bringing forth of fruit. To haſten and helpe forward a tree in his bringing forth of fruit, which is long before it beare anie thing, you muſt make a hole with a wimble in the thickeſt branch of his root, 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 foot ouer againe, and the tree will beare the yeare following.

The drines of a tree. As concerning trees that haue beene lately planted, and begin to wither away, if you cauſe them to be digged and watered, you ſhall much helpe them: and withall, they muſt be kept from heat, in prouiding ſomething 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 manie places, and likewiſe in the foot of the tree a little, in ſuch ſort, as that the humor may runne out.

The breeding of wormes. The moiſture oft times will cauſe wormes to breed in fruits that haue kernels: and therefore at ſuch time you muſt pierce the tree with a wimble, and that throughout if you doe well, and as neere the root as is poſſible, to the end that the humors breeding the wormes may paſſe away.

The falling of apples from the tree. If Apples or any other ſuch fruit fall from the tree, cleaue the root, and put in the cleft a great ſtone or a wedge of vvood.

Fruits riſing vpward. If fruits grow vpward, waſh the foot of the Tree with Purcelaine water or vinegar; or powre about it lees of vvine: or take two parts of Oyle-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 annoynted with Petroleum: or a little cord dreſt ouer with ſwines bloud, wherewith quickſiluer hath beene mixt.

To kill Ants. To kill Ants from about a tree, you muſt vncouer the earth about the tree, and put in place ſome chimney foot, and that a reaſonable quantitie. Take alſo of the ſaw-duſt of the Oake, and lay good ſtore of it at the foot 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, fogges, or miſts, flies, frogges, and ſuch other inconueniences, ſee in the ſecond Booke, and the ſixtieth Chapter.

CHAP. XLVIII.

To keepe and preserue the fruit 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 Fruit-tree, and carefull maintaining of it; but he must know withall, the keeping and preseruing of the fruit, either to sell it when the time is good and fit, or else for vse of his houshold and familie, especially in places where the most delicate and daintie fruits doe grow, as in the countrie of Touraine, which for this and such other considerations, is called the garden of France: wherefore we will intreat briefely of the manner of keeping of fruits, and we wil begin with the Almond. *Tourraine the garden of France.*

Almonps are ripe vvhen they begin to cast the huskes. If you vvash them in sak brine, you shall make them vvhite, 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 vvill cast it: to keepe it long, lay it in a drie place where the South vvind bloweth not. *Ripe Almonds.*

Chesnuts vvill be good to keepe vnto the Spring time, if you first drie them in the shadow, and after lay them in drie places vpon heapes, or in vessells couered vvith sand: or and if you mingle them amongst common nuts, for by this medley they will be robbed of their excrementous humour. But chiefely to keepe them long, you must gather them vvhen they are reasonable ripe, in the old of the Moone, and lay them in sand in some coole place, or in some vessell vvell stopt. Some doe spread them vpon hurdles, or burie them so in sand, as that one of them touch not another. Othersome set them in rankes in baskets or panniars full of straw. You may trie if they be sound, by casting them into cold vvater: for if they go to the bottome, then they are sound, but and if they swim aboue the vvater, they are corrupted and naught. *Chesnuts.* *Sound Chesnuts*

Cherries vvill keepe long, if you gather them from off the Tree before the Sun 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 vvith sweet vinegar. In like manner they vvill last long if you order them after the said manner, couering them vvith Rose leaues in a barrell: they are likewise either dried in the Sunne, or stewed in their owne juice, and preserued with sugar to keepe a long time. *Cherries.*

If you annoint your Citrons, gathered with the leaues vpon their boughes, with well tempered plaster, you may keepe them sound a whole yeare: and if you hide them and couer them with barly, they will not rot: or if you doe but close them vp close in anie vessell whatsoeuer: or else if you doe but couer them with small straw. *To keepe Citrons.*

The Corneile-berrie (commonly so called) must be put in a bottle of glasse which hath a wide throat, and when they are in, the bottle must be filled vp with very good and liquid honey, or else with sugar in stead of honey: after this, the iuice rising of this sugar wherein they are preserued, is a singular thing for the staying of the flux of the belly, and the procuring of appetite. *To keepe the Corneile-berrie.*

To keepe Quinces, dippe 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 dippe 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 sawdust of Wood, or Figge-tree leaues. Othersome couer them with leaues and loame made *For the staying of the flux of the bellie.*

made of potters clay, and afterward drie them in the Sunne: and when they would vse them they breake the clay, and taking out the quinces, find them such as they put them in. Some put them all whole in honie. But note by the way, that you must not keepe quinces in a house where there is other fruit, for what by their sowernesse, and what through their smel, they spoyle 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 figges.

Figges will be alwaies greene and new, if you put them in a pot full of honie well couered, in such sort as that they doe not touch one another, 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 smoake cannot come: or if you put them in a glasse pot well stopt with Wax. 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 drie leaues, or shut vp in a coffer made of the wood of Walnut-tree: or if they be mingled amongst Onions, whereunto they doe this pleasure, as that they take from them the greatest part of their acrimonie, or sharpenesse. Some say likewise that they will be kept greene a whole yeare, if when they are gathered greene, they haue their coat taken from them and be dipt in honie: and thereupon also such honie becommeth singular for them which haue vlcers in their mouth or throat to make gargarismes of for the same.

To keepe Pomegranats.

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 as soone as they be gathered, they be couered all ouer with potters clay, tempered in water, and afterward set out to the Sunne in sweet oyle, 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 hand, that so you may not crush them: they keepe verie well also in saw-dust of oake woad, in salt vvater, or salt brine. Or else you must dip them all ouer in boyling 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 shadow, vntill that their rind be hardened.

To keepe apples.

Apples after they haue beene gathered in weather not rainie or cloudie, but faire, must be kept spred vpon their eyes, not vpon their tailes, vpon a table couered with corne straw, in a cold place, but not in a caue (for in such a place they would loose their sauour) and where the windows are turned toward the North, which likewise must in faire weather be set open: or vpon straw, 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 vvhich case the apples will continue such as they were put in. Some wrap them euerie one by themselues in figge-leaues, and after couer them with lome of vvhite potters clay, and with drie lome, and set them in the Sunne. Some after they haue gathered and made choyce of the soundest, heauiest, and fairest apples, not being yet altogether ripe, doe set a hogshead in the ground, round about which they set these fruits, and couer them afterward vvith a bed of straw, laying againe another bed of apples thereupon, and couering the same as before, they continue thus vntill the vessell be full, vvhich then they take out of the earth againe, and stop it euerie where close, that so there may no ayre 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 drie them in ouens, for Winter and Spring time banquets. But the ordinarie and safest manner of keeping of apples is, after they are got and pickt, and the bruised ones put from the rest, to spread straw verie thin, or lay mats vpon a boarded floore (for the earth floore is too moist, and the plaster floore too cold) and then spread your apples vpon the same, so as they may lye close one by another, but

but not one vpon another, and when extreame froſt or verie hard weather ſhall come, you ſhall lay the like layre of ſtraw, or the like quantitie of mats aboue them, as you laid beneath them, and as ſoone as the froſt breaketh vp, you ſhall with a drie cloth rub all moiſture from them, and where you find any one tainted, preſently caſt it out, for elſe they will ſoone corrupt one another. Now as ſoone as Februarie is paſt, you ſhall take away your ſtraw or mats both from aboue and vnderneath them, and lay your apples vpon the plaine boards, but yet in ſuch ſort that they may not touch one another, and thus you ſhall keepe apples all the yeare ſafe, both from rotting, vvithering, or vvrinkling of their skinnes.

To keepe medlars. Medlars are kept in ſmall pitcht veſſells, or put in pots amongſt grapes.

To keepe olives. Olives are preſerued in ſalt brine, or in a compoſition of honie, vinegar, and ſalt: ſome adde thereunto penniroyall, mints, aniſe, and maſticke-tree-leaues: otherſome, the leaues of the bay-tree; and others, the berries of the bay-tree.

To keepe 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 cured Wine, or wine from the preſſe, or common vvine as it is meet 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 drunke, 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 vvhereunto 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 ſlopt vp in a glaſſe veſſell, doe keepe verie long, ſo that therewithall they haue powred vpon them ſome of their owne juice.

To keep citrons and oranges. Citrons and Oranges are kept in ſome caue vnder the earth, ſeparate one from another, or in ſalt brine made of verjuice, or verjuice without ſalt, or in maner of a preſerue with ſalt, as the oliues are kept.

To keepe peaches. Peaches are kept in ſalt brine, or in ſweet vinegar: or elſe their ſtones being taken away, they are dried in the Sunne, after the manner of figges. Some doe preſerue them with honie.

To keepe ceruiſes. Ceruiſes are preſerued in ſweet Wine: or elſe vvhen they be gathered, the hardeſt are taken and ſet to ſoften in veſſels of earth full or almoſt ful, couered ouer afterward with plaſter, and ſet in a pit a foot depth, in a drie place, and in the face of the Sun, and after couered with earth. You may likewiſe cut them in peeces in the middeſt, and afterward lay them in the Sunne to drie.

To keepe damaske-plums. Damaske-plums ſhall be put in veſſells, and caſt vpon them new or ſweet Wine, ſtopping the veſſells verie diligently and cloſe. Or if you lay them betweene mulberrie-leaues, or vine-leaues, one leare aboue another in a cloſe box made for the purpoſe, they will not onely keepe a long time, but alſo you may in that ſort carrie them without bruiſing more than an hundred miles: in this ſort alſo you may keepe or carrie Nertarines, Abricots, Peaches, Figs, Mulberries, or any fruit of the like nature; as for your grapes, there is no readier or better way to keepe them long, than to hang them vpon ſtrings ouer the mantell-tree of a chimney, or where they may receiue a moderate warmth from the fire, for nothing ſo ſoone as cold doth make them rot or putrifie, and therefore you muſt by no meanes, ſo farre as you can chuſe, ſuffer your grapes to take any froſts, nay hardly the cold dewes.

Chap. XLIX.

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 roughnesse of the aire, and whereas notwithstanding there grow singular good fruits, and in great aboundance in recompence of the same (as in Britaine, Normandie, the countrie of Mans, Chartraine, and Touraine) although there be the meanes to make Wine of a certaine kind 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 drinkes of fruits: and to giue them their seuerall and particular names from the seueral and particular fruits whereof they are made. As for example, that which is made of apples, cider or citer, and so the Normans and other countries bordering thereupon doe call it, as hauing a smell or other excellent qualitie resembling the citron. Perrie which is pressed out of the Peares, and ceruise Wine, quince Wine, pomegranat Wine, mulberrie Wine, gooseberrie Wine, and sloe Wine, vvhich are made of the juices of these fruits pressed out. And hereof vve are to obserue that all fruits are not fit to make Wine of; but onely those vvhich vvill not putrifie easily, and haue great quantitie of Wine juice vvithin them, of vvhich kind these are vvhereof I haue now spoken. For of cherries there is not any Wine to be pressed, because their juice doth easily corrupt and putrifie verie 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 drinkes, but onely of them vvhich are called cider, perrie, and carasie, vvhich next vnto the juice of the vine, are the most profitable and necessarie liquor for the life and health of man: vve vvill set downe before hand a certaine summarie, and as it vvere a transition and plaine declaration of and vnto as well the making, as also of and vnto the qualities and vertues of the said cider, 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 juice, vvhich he pressed out of the grape of the wild vine planted by him, was the first inuentor of making and drinking of vvine: so a certaine Norman hauing his taste vvonderfully pleased vvith a delicate and daintie taste and rellish of the iuice of Apples and Peares, inuented the making of Cider and Perrie: I say, a certaine Norman, for this is in base Normandie called the Countrey of Neuz, where this drinke had first his beginning.

The way in generall to make such Wine.

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 ayre, or to drie them in the Sunne, for the spending and wasting of their waterie humour; then to breake and crush them with Mil-stones, 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, wild Peares doe yeeld more liquor, and of a better taft, and withall of longer continuance, than 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 intend to declare more particularly.

How Cider is made.

THe drinkes made of fruits that are moſt commonly vſed, are Cider and Perrie, vvhich as they are preſſed out of diuers ſorts of Apples and Peares, ſo are they differing as well in taſte as in goodneſſe. For to make your Cider, you muſt ſee that your Apples be not wild ones, but garden and tame ones, growne and bred in orchards carefully and diligently dreſſed, kept, husbanded, and ordered all the yeare long, according to that care and diligence vvhich vve haue ſaid to be needfull before in ſpeaking of the Orchard, and yet vvithout hauing any great regard vnto the place vvhere the Orchards are planted, and doe grow, as vvhether they be gardens, greene-plots, arable ground, or other ſuch like places; alwaies prouided and foreſeene, that the ground be good, and vvell ſeaſoned. And aboue all things ſuch Apples muſt haue a firme, ſolide, and faſt fleſh, accompanied with great ſtore of juice, of a pleaſant ſmell, and delightſome taſte, and of a beautifull colour: ſuch are theſe that follow, the Heroet, Ruddocke, Maligar, Rambur, Fairewife, Gaſtlet, Clanget, great Eye, Greening, Curtaine, Groſegraft, Rucke, long, ſower, and ſweet Kennet, Barbarian, Rangelet, and Adouill. The Shortſtart, Honie-meale, and Garden-globe, notwithſtanding that they be rare and ſingular apples, and of a more pleaſant ſmell, and delightſome taſte, than any other ſorts of Apples, yet are they not fit to make any Cider of, as well in reſpect of the tenderneſſe and delicacie of their fleſh, as for the little and inſufficient ſtore of juice which they yeeld, not worthie the putting into the preſſe to make any quantitie of Cider of. And hereto you may put another reaſon; namely, that theſe Apples are not ſo plentifull, neither grow they in ſuch ſtore as others doe, and therefore it is better to keepe them to eate, or to imploy them in broths or ſirope of king *Sabor*, and *de ſuccis pomorum*, than about the making of any common drinke.

What apples are fitteſt to make wine of.

The moſt common time to gather Apples is about mid-September, after they haue beene partakers of Sommers heat, and receiued ſome ſmall raine and gentle vvinds from September: ſome being verie ripe; others yet not altogether ripe; principally thoſe which haue a faſter and leſſe delicate fleſh: the greateſt part vvhereof (being kept ſome time) yeeldeth greater ſtore of juice, and better concocted and digeſted by the vvorke and operation of their owne naturall heat. In the gathering of them there is neceſſarily to be vſed cudgels and poles, except it be that wee lay our hands to them, vvhich vvee haue a purpoſe to keepe: there muſt in this buſineſſe alſo be choſen ſuch a day as is faire, drie, cleare, beautifull, and full of Sunne-ſhine, for if they ſhould be moiſt with any raine or dew, they would rot in their garners.

The time to gather apples.

Being gathered, they muſt not all of the ſodaine be taken in hand to be made into Cider, but they muſt be ſuffered to take a heat in heapes, (as the Normans call it) and be kept ſome three vveekes or a moneth, more or leſſe, according to their conſiſtence and kind, ſeeing vnto it in the meane time (at their owne peril) that they rot not; as alſo, they may be layed on great heapes in Gardens, or vnder ſome roofe open to the ayre vvhen it freezeth not, or vvhen it freezeth, to couer them with ſtraw newly threſhed, or elſe vvith ſome Mattreſſes or Featherbeds to keepe them from the froſt. Some during the time of the froſt, couer them vvith linnen Clothes ſteeped in water, and vvrung out, and theſe being frozen once themſelues, doe keepe that the ayre cannot paſſe vnto the Apples to freeze them: the beſt of all is to prouide them warme garners, the floores being layed neither with plaſter nor tiles, but with ſtraw, hauing the windowes verie cloſe, the doores firme and faſt ſhut, and all the creuiſes or chinkes perfectly ſtopt to reſiſt the entrance of the cold ayre. 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 come to this exact maturity and height of ripeneſſe, for elſe your cider will not proue durable, but withall will gather great quantitie of lees,

and grow couered with much vvhite mother ſwimming aloft: if they be frozen, then trouble not your ſelfe with going about to make Cider, 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 raw, weake, vnpleaſant, vvateriſh, vndurable, and ſoone ſowring licour. When as therefore the apples ſhall be vvell prepared, and come to a good ſcantling of ripeneſſe, not ſuch a one as is exact, but rather of the firſt or ſecond degree of ripeneſſe, and that they ſhall yeeld and breath out a verie pleaſant and ſweet ſmell: then it ſhall be high time for you to goe in hand vvith making of your Cider. Which oportunitie if you foreſlow and ſtill ſtay longer for their further and exact ripening, they vvill vvither and fall away, and the Cider that you ſhal preſſe out of them, wil become wateriſh, weake, and ſowre out of hand.

The manner of preſſing out the drinke made of Apples.

There are diuers wayes vſed in preſſing out this drinke made of Apples in the countrie of Neuz: Some doe ſtampe them, putting them in fats, and afterward fill them vp with great quantitie of water, letting them ferment, boyle, and purge, ſo long as vntill the water haue got the force and ſtrength of the Cider. 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 wayes are not ſo much worth; this third is better than 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 ſeuen or eight fadome, the ſaid compaſſe and round being contriued after the manner of a trough of two foot broad and deepe at the leaſt, in theſe troughes ſhall be put and contayned 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 millſtones of ſtone, or of ſome hard, maſſie, and weightie wood, faſhioned like a wheele, carried about vvith one Oxe or Horſe, or two, ſo as ſhall be ſufficient for power and ſtrength, as we haue ſaid in the making of Oyles. When the Apples ſhall 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 draw out the juice or liquor (call it as you vvill) which ſhall haue runne out of the ſubſtance without being preſt, and turne it vp into veſſels, whether they be pipes or hogſheads, old, or altogether new; prouided that they haue not taken any ill taſte of any vnſauourie liquor: the beſt veſſells or caske of all other, is that wherein there hath beene Wine, and eſpecially white Wine, for the ſauour of the Wine doth make this juice more acceptable, and more affected. The Cider that commeth voluntarily without being preſſed, is the beſt and ſweeteſt, though not alwaies ſtronger than that which hath abode the preſſe: that likewiſe is better and more excellent which is made without any mixture of vvater: 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 vvater with them to make them breake the better, as alſo, after that they be broken by 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 vvater be mixt with them, to preuent that the Cider may not be too ranke, neither yet too ſowre or greeniſh. The grounds of the vvorking fat ſhall be layed vpon the preſſe interlaced with long ſtraw, to keepe the ſaid ſtamped Apples ſteedie and ſtayed, that they ſlip not to and fro when they are preſſed, (the Apples by reaſon of their roundneſſe, not being able to ſtay and abide vnder the doore and other boards of the preſſer, except they be kept in vpon the ſides with ſomething) and that which ſhall run out vpon the preſſing of them, ſhal be tunned vp into caske, and put to the former: or elſe, which is better, tunne 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 ſweet. The droſſe or groſſe ſubſtance remayning after the preſſing, ſhall be put againe into the

fat

fat, and ſtamped, and ſufficient quantitie of water powred in amongſt, and it ſhall be let ſo reſt, ſteepe, and boyle together for the ſpace of foure and twentie houres: after which, there ſhal be made thereof ſpending Cider, 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 foure veſſels of the beſt.

When the Cider is tunned vp into caske, you muſt let it boyle within the caske by the bung-hole of the caske left open, and thereby to purge it ſelfe of all his froth, ſcumme, 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 be not top full, leaſt in the boiling it breake the veſſell. And indeed this kind of Cider is a great deale more ſtrong than 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 lye in ſome cellar for the Winter time, but in ſome caue in the Summer.

Cider, as concerning the taſt, doth reſemble and become like vnto Wine: for at the firſt it is ſweet; afterward, being fined, it is ſomewhat ſharpe; and when it is altogether fined, it hath then a ſharper relliſh, but yet altered from his former verdure: euen after the manner of Wine, as being more pleaſant when it is in fining, than when it is fined.

The Cider is better to keepe than Perrie: and there are Ciders found of two or three yeares old, as good, in their place, as anie 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 piercing of it, as if it were Wine, not giuing it any ayre in the drawing of it, if it be poſſible, or if you giue it any at all, to giue it when the toſſet is halfe out, cauſing the ayre to recoyle before the fountaine be ſtopt vp and ſhut. So ſoone as the Cider 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 and ſtinke, in ſuch ſort, as that it would neuer be good afterward to keepe any Cider. And thus much for the making and keeping of Cider. Now we will ſpeake of the making of our choiſe of the Apples.

To haue excellent Cider, you muſt make it of ſweet Apples, and that but of one or two ſorts, and both of them in his kind verie good, of a pleaſant taſt, and ſweet ſmell: and you muſt breake and ſtampe them euery ſort by it ſelfe, but put them together vnder the preſſer. That which is made of ſweet Apples mixt amongſt ſome ſowre ones, is not altogether ſo excellent good, and yet in the heat of Summer to be preferred before the moſt excellent Ciders, in that it is more cleare, heateth leſſe, and quencheth thirſt better. And of a certainetie experience hath taught it, that the Cider made of ſweet Apples, hauing a ſoft and tender fleſh, is more apt to ſowre, if that there be not ſome ſowre ones mingled amongſt them, becauſe that ſuch ſweet Apples haue but a weake heat, and eaſily ouercome and waſted. But ſuch ſweet Apples as haue a faſt fleſh and thick iuice, ſtand not in need of hauing any ſowre Apples mixt with them, to the helping of them to make good Cider. It is true, that ſweet Apples yeeld leſſe Cider than ſowre ones: but yet, in as much as the ſweet haue the leſſe iuice and the thicker, therefore their Cider is the better, laſteth longer, nouriſheth the body more, and is a longer time in fining: But on the contrarie, thoſe ſweet Apples which haue much iuice, doe make much Cider: but this Cider is not ſo good, nor making ſo good nouriſhment, notwithſtanding it be ſooner fined and readie for drinking. Sowriſh Apples doe yeeld much iuice, that is waterie, thinne, and ſoone fined, but nouriſhing verie little.

The Cider that is all neat, and of it ſelfe, without any mixture of water, doth fine and become cleare more ſlowly than that which is made with water: In like ſort it retaineth his ſmell and taſt 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 ſixe moneths once paſt, or if ſomewhat longer, yet after one yeare it cauſeth the Cider to ſowre, and then ſo much the ſooner, as there ſhall be the greater quantitie in the

mixture, as in the houſhold or ordinarie drinke. Wherefore ſuch Ciders as you would haue to laſt long, muſt be made without water, and vſe rather to mixe your vvater vvith them vvhen they are drawne out of the veſſell to drinke, if then you find them too ſtrong for you: and this alſo is the ſame courſe taken with Wine, eſpecially when ſuch a ſicknesſe hath ſeiſed vpon the partie, as craueth a thin, weake, and vvateriſh drinke.

Ciders 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 vvhich is made of Apples that are red vvithin 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 farre off, but afterward comming neere to the reſembling of Hippocras. Others are of the colour of Muſcadells, 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 vvater.

As concerning their reliſh and taſt, all Ciders, 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 than vvater. 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 ſweet, as well the new as the old, and fined, are the beſt of all, and nouriſh moſt. But it is true withall, that the new doe ſwell vp a man, and cauſe obſtructions: The fined Ciders, are good for ſuch as haue weake lungs, or thoſe which are ſubject to the ſtone, or haue vlcers in the reines or bladder. Such as are bitter, and hold out bitter, are naught: But ſuch bitter Cider as after becommeth ſweet, is the beſt of all, and laſteth long. Such as are greeniſh, if they continue the ſame colour alwaies, are not of any value: but if in time they change this greeneneſſe into a maner of ſweetneſſe, then they proue good, and laſt long.

You may alſo make Cider of vvild Apples, but ſuch Cider although that it laſt longer than that vvhich is made of tame and garden apples: yet it is not ſo pleaſant nor profitable for the ſtomacke.

Good houſholders doe not looſe the droſſe of their preſſings, but (as we haue ſaid) caſt them into veſſells, and vvith a ſufficient quantitie of fountaine vvater, make Cider for the houſhold: 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 vvhere they haue not the benefit of mill-ſtones, preſſers, & other implements for to make Cider, they ſtampe apples, but not of all ſorts, but onely wild ones with a ſtamper, and afterward put them thus ſtamped into veſſells with a ſufficient quantitie of water, and this is called Cider-pinet.

Pinet.

The vertues of Cider.

As concerning the faculties and vertues of Cider, they muſt be meaſured and judged 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 vvhereof they vvere made, vvhich vvere either ſweet or ſowre, or harſh, or of moe taſtes than one, or vvithout any taſte at all: but likewiſe of the age thereof, in as much as Cider if it be kept, changeth his taſte, together vvith the time, and getteth another reliſh, after that is fined diuers from that vvhich it had, vvhiles it was in fining, or that it had vvhen it began to fine, after the manner of new vvine, which when it commeth to be old, purchaſeth and getteth diuers qualities together vvith the time. Such Cider therefore as is ſweet, becauſe of the ſweetneſſe which commeth of temperate heat, heateth in a meane and indifferent manner, but cooleth leaſt of all; and againe, it is the moſt nouriſhing of all Ciders, and the moſt profitable to be vſed, eſpecially of ſuch as haue cold and drie 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, verie tender and queaſie, and ſubject vnto cholericke vomits: ſo that in ſuch complexions as are hot and cholericke, it is needfull as with Wine, ſo vvith Cider to mixe water in a ſufficient quantitie; vvith ſweet Cider vvhen they take it to drinke, eſpecially when ſuch perſons haue any ague vvithall,

Sweet Perrie.

or

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 bellie, or collicke; because that sweet Cider, pressed new from sweet Apples, is windie by nature, as are also the sweet Apples themselues. This is the cause why Physitians counsell and aduise, that sweet Apples should be rosted in the ashes for them which shall eat them, that so their great moistnesse and waterishnesse, which are the originall fountaine of their windinesse, may be concocted by the meanes of the heat of the fire. Vpon the same occasion it falleth out, that neither sweet Apples nor sweet Cider can be good for them that are subiect to distillations and rhewmes, because of their windinesse, and for that likewise, that as the Arabian Physitians doe iudge, they breed great store of windinesse in the muscles and sinewes, which cannot be discussed but with great paine and continuance of time. Amongst the sweet Ciders, the best and most wholesome are those which are made of these Apples, the Heroet, sweet Kennet, Curtaine, and Rangelet, because these Apples are verie sweet, of a golden colour, good smell, and long lasting.

Sowre Cider.

Sowre Cider, whether it were made such by reason of the sowrenesse of the Apples, or become such by reason of the space of time, in as much as it is verie watrie, and somewhat earthie, as also verie subtill and piercing, and yet therewithall somewhat astringent and corroboratiue; becommeth singular good to coole a hot liuer and stomacke, and to temper the heat of boyling and cholericke bloud, to stay choler and adust vomiting, to asswage thirst, to cut and make thinne grosse and slimie humors, whether hot or cold, but chiefely the hot. Such drinke falleth out to be verie good and conuenient, and to serue well in place of wine, for such as haue anie Ague, for such as are subiect to a hot liuer and hot bloud, for such as are scabbed, or itchie, for such as are rheumaticke, vpon occasion of hot humors, and it needeth not that it should be tempered with water. Of sowre Ciders, those are the most wholesome which are made of sharpe sowre Apples, as of Rundockes, Ramburs, and sowre Kenners.

Cider that is harsh and rough.

The Cider 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 harshnesse, changing this his great coldnesse and drinesse into a meane and middle coldnesse, accompanied with some moisture, drawing thereby neere vnto some kind of sweetnesse or tart and pleasant sharpenesse: as we see it come to passe in fruits, which yet, whiles they are not ripe, haue a certaine kind of harshnesse in them, but comming to be ripe, change by little and little their harshnesse into an eager tartnesse, and after into a pleasant sweetnesse. Wherefore such Ciders would not be drunke till of a long while after they be made: or if that great necessitie should compell, then to allay them with a sufficient quantitie of water; for otherwise, they would but cause costiuenesse, the strangurie, shortnesse of breath, and an infinite 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 bloud 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 betideth women hauing newly conceiued, and strange appetites, for which this Cider 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 heart, and cutteth off faintings: it helpeth digestion, drunke at the end of meat, so that (as we haue said) it be allayed with a little water, to diminish and reforme the heauinesse and slownesse to pierce and passe away which is in it; following the counsell of *Galen*, who teacheth three manner of waies to vse sowre and binding Apples and Peares, without anie prejudicing of the health: the first way being to boile them in water, that so they may get more moistnesse and softnesse: the second, to set them in the breath and vapour of boyling water, to moisten and ripen them: and the third being

being to cut them in the middeſt, and to take away their core, and in place thereof to put honey or ſugar, and then afterward to roaſt them amongſt the hot aſhes. Theſe kinds of Ciders are made principally of the Apples called ſmall Ruddocke, of wild Apples, not grafted nor husbanded, of Apple Bequet, Rellet, and ſuch other, hauing their coats diuerſly ſpotted.

Ciders without anie taſt.

Ciders without all taſt become ſuch by reaſon of their great wateriſhneſſe, 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.

Ciders of mixt taſt.

As concerning Ciders hauing ſeuerall taſts, as eager and ſweet, harſh and ſweet, or anie ſuch other medley; the eager ſweet are much better and more wholſome than the harſh ſweet, becauſe they are not onely more pleaſant, but alſo more ſpeedily paſſing, piercing, and cutting, than the other; which by reaſon of their harſhneſſe, ioyned with ſome ſweetneſſe, and cauſing a thickneſſe and heauineſſe in them, abide and ſtay long about the principall parts, where they may cauſe crudities and manie obſtructions.

As for the age and laſting of Ciders; ſuch as are new made, and continue as yet troubled, not being fined, are not wholeſome, and cannot be drunke without hurt vnto the ſtomacke, without head-ach, and an infinite companie of obſtructions and other accidents, tedious to the health. For ſuch as are verie ſowre, and begin apace to turne tart and eager, they are not leſſe hurtfull than the former, and therefore they muſt not be vſed but when they are well fined, and in their middle age, as wee ſee it obſerued in wine.

As concerning the compounding of them; thoſe are the beſt, moſt wholeſome, and eaſieſt to be digeſted, which are made of verie ripe Apples, gathered in due time, and not ouer-long kept, which are likewiſe made of one onely kind of Apples, or elſe of manie kinds, but either agreeing in taſt; or elſe being of a diuers taſt, yet are ſuch as may be tempered together, and make a more pleaſant taſt, than if they were alone and ſeuerall: as for example, if one ſhould mingle amongſt ſweet Apples ſuch as were eager and ſharpe, ſuch a medley would make a farre more pleaſant Cider, and more profitable, than if either of the ſaid ſorts were alone. The Cider likewiſe that is made of Apples onely, is better than that which is made of Apples and Peares ſtamped and preſſed together: better in like manner, and more wholeſome, are thoſe which are made without water, than that which is made with water, ſeeing water maketh it to loſe his naturall taſt, maketh it ſowre and corrupt, and that it will not laſt or endure long: wherefore it is better not to mix any water at all with it when you make any, but rather at the time of drinking of it to dilay 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 Ciders is that which is made of wild Apples, ſtampt and caſt into a veſſell with fountaine water in ſufficient quantitie: and yet worſe than this, is that which is made of the droſſe remaining of the firſt preſſing; as that alſo which is only caſt into a veſſell with ſufficient quantitie of water: Wherefore, ſeeing that Ciders, how pleaſant and excellent ſoeuer they be, affoord no ſuch nouriſhment vnto the bodie as is verie profitable for them, as we will handle more at large hereafter; hee that will be careſull of his health, ſhall vſe none but the beſt Ciders. Wee will ſpeake againe of the faculties of Cider in the ſixt Booke, in the ſame place where wee ſhall ſpeake of the faculties of Wine.

How Perrie is made.

PErrie is made of diuers ſorts of Peares: ſometimes of rough, harſh, ſowre, and wild ones, neuer husbanded, planted, grafted, or otherwiſe hauing had anie labour or paines taken with them: ſuch Perrie will keepe long, euen three or foure yeares, and be better at the end than at the beginning: Sometimes of Garden, tender, and delicate Peares, ſuch as are the *Euſebian* and the *Marie* Peare, the Roſet,

Haſting,

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 moneths old, it becommeth void of all tast, 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, very 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 carefully and diligently husbanded and ordered, according to our former deliuered precepts, in what ground soeuer that the Peare-trees grow, as whether it be in Orchard, Garden, arable ground, or other such like, so that the said ground be such and so well seasoned as is requisite to bring forth Peares in aboundance: and such as be good Peares, must be 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 grind the same with a turning Mill-stone 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 hardnesse and heauinesse cannot ripen well vpon the tree. Such as these are not to be employed to make Perrie of, till they haue layne to ripen and mellow, that so they may become the tendrer and softer, to get the greater quantitie of iuice out of them.

Whether they be Peares to be gathered early 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 Cider: for after the same manner must you proceed, in sometimes mingling water with it, when there is need, as also in the manner of the vsing of it in the working, boyling, 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, than you vsed about Cider, especially in respect of the cold and frost, which Perrie cannot in anie sort endure: insomuch, as that all Winter long you must keepe the windows of the cellar or caue vnder ground where it lyeth, close shut, and well stopped with straw, or some such other thing, to driue away the cold: besides that, Perrie is not so good for keeping as Cider is, except it be the Carisie, or that which is made of the Peare Grosmeuill, or such other Peares as haue a hard flesh and skinne, the Perrie whereof may be kept two yeares vndrawne, and after they be pierced or drawne of, six weekes, foreseene they be well ordered and gouerned. Perrie maketh as great, yea greater setling than Cider, whereof you must free the vessell presently after the Perrie is drawne forth, for otherwise there will breed an infinite number of wormes in the vessell, which will infect it. The good house-holders doe make a sort of Perrie for the household, 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 Cider.

The faculties and qualities of Perrie must be considered of and weighed in such manner as we haue said of Cider, that is, by his tast, age, and making. The tast of the Perrie dependeth for the most part of the rellish of the Peares out of which it is pressed, and those are either sweet, or sowre, or harsh, or of mixt tasts, or else altogether *The vertues of Perrie.*

without

without taſt, according to which relliſhes you are to find out the vertues and qualities of Perrie, following ſuch forme and manner as we haue largely laid downe in the handling of Cider. It is true, that to ſpeake particularly of the good qualities of Perries, the moſt wholeſome, profitable, and of beſt iuice, are thoſe which are made of the Peares called the waxen Peares, the ſame being preſſed out in the Summer time, and foreſeene alſo that it be drunken ſo ſoone as it is fined, becauſe it is not to be kept, being a verie delicate and tender iuice; and therefore apt to corrupt eaſily and verie ſoone. Next vnto this in goodneſſe is the Perrie made of Peare Robart, and Muſcadel Peares, prouided that they be drunken alſo ſo ſoone as they be well fined, and their lees ſetled, but then alſo they muſt be drunke with water, and but in a reaſonable and meane quantitie, for otherwiſe by the piercing ſmell and ſubtilneſſe 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 allayed 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 wild Peares, and all ſuch as are vnhusbanded, vntamed, of a ſharpe taſt, fat, reddiſh, or of thoſe which are preſſed out of diuers ſorts of Peares, not agreeing together either in taſt, or otherwiſe; neither yet of ſuch as are made of Apples and Peares mingled and preſſed together; 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 Cider, it may be applyed vnto Perrie for the moſt part: and yet notwithſtanding all this, we are not to confeſſe the Perrie to be anie whit inferior vnto Cider: for although in ſome Countries, as in Britaine and Normandie, they make ſpeciall account of Cider, and doe more eſteeme of it both for the taſt, laſting, aboundance, and profit thereof, than they doe of Perrie; notwithſtanding, if neceſſitie ſhould driue a man to conferre the one iuice with the other, comparing the ſweet Ciders with the ſweet Perries, the ſowre with the ſowre, the ſharpe with the ſharpe, and the mixt taſts with the mixt taſts, it would be eaſie to iudge, that the Perrie is more wholeſome and profitable for the ſtomacke and whole bodie, than the Cider: for beſides the aſtringent, binding, ſtrengthening, and corroboratiue vertue that it hath to benefit the ſtomacke withall, and that comming from his terreſtrious and earthie temperature, which all ſorts of Peares doe moſt conſiſt of, whether they be ſweet or ſowre, rough, or otherwiſe relliſhed; there is yet further in the Perrie a certaine ſecret and vnſpeakeable vertue for the ouer-comming of poyſon, and principally the venime engendred in the ſtomacke by eating of Muſhromes, which indeed is the Perries naturall qualitie, as left it of the Peares from which it is preſſed. Againe, wee ſee by experience, that the vſe of the Peares is euerie where more commended than the vſe of the Apples, and that for this cauſe there is more careſull heed and charge enioyned for the keeping of the Peares than of the Apples, as thoſe which for that cauſe are wont to be preſerued in ſugar or honey. They are alſo dried in the Sunne, dried in the Ouen, and made vp in compoſition to ſerue in time and place. It is true that Cider moiſteneth more than Perrie: but in recompence of that, the Perrie doth relieue and refreſh a man more, and in cooling of him, comforteth withall, ſaue that it ſtirreth vp more oft the paine of the bellie and the collicke than Cider doth, eſpecially the ſowre or harſh Perrie, in ſuch as are ſubiect vnto the collicke; and the cauſe is, for that it paſſeth not away ſo ſpeedily by vrine through the bellie, but ſtayeth longer time in the ſtomacke, and about the principall parts, than Cider doth, as wee haue declared in the Treatiſe of the Peare: For which cauſe, it is better to drinke of it at the end of meat, than at the beginning, ſo that the partie haue not anie vomiting, or flux of the bellie; following the counſaile of *Dioſcorides*, who ſayth, That Peares eaten faſting bring harme and inconuenience.

Loe

Loe here, in my opinion, what wee are to iudge of the qualities of Cider and Perrie, as well in particular, as in comparing of the one with the other.

It remaineth, that we examine what kind of drinke the Perrie and Cider are, and whether there be anie 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 Physitian of our time could not content himselfe with matching of them together, but went further, and preferred them before Wine in euerie thing: but this might happen (possibly) by his being more affected towards his Country, or by being carried away with a paradoxicall iudgement, than vpon any sincere mind to find 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 Latine, and entituled *De Salubri Diata*, that so wee may not in this place passe the limits of our Farme and Countrey house.

The making of Ceruise drinke.

CEruises must be gathered when they are halfe ripe, euen so soone as you espie anie of them to fall from the tree: Suffer them not to mellow and ripen, except it be a verie little, for when they be throughly ripe, they are not worth a farthing to presse out to make drinke of. You must breake them lightly in the trough of the Presser, let the iuice worke together in the fat, after it is prest, and when it hath wrought, tunne 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 goodnesse, by his hauing lost his sharpenesse and vnpleasantnesse, and turned the same into the tast of Wine which is of a white colour: Or if you will not stay the full ripenesse thereof, then dilay it with sufficient quantitie of Fountaine water, when you will drinke it.

This drinke, though it be the first of that kind that was put in practise, as the patterne after which all other sorts of Fruit-drinkes haue beene made, and of which, and not of anie moe, *Virgil* maketh mention in his Georgickes; notwithstanding, it is so cold a friend vnto the health, as that it is not to be much set by. It is verie true, that for want of other remedies, in case of necessitie, the Countrey-man may serue himselfe with this Wine, when hee findeth himselfe heauily oppressed with the flux of the bellie, whether it be that which is called the bloudie flux, or anie other kind thereof.

Drinke made of Sloes.

THe good Householders of the low Countries of Normandie, being such as will not loose anie thing, and thereupon being more carefull to get goods, than to keepe their health; so soone as Autumne is come, cause to be gathered by their people great quantitie of Sloes, whether they be ripe, or not: which done, they powre them into certaine Vessels with sufficient quantitie of water, and stop vp the Vessels, without touching of them. Before a moneth be at an end, this water thus infused doth represent the colour and tast of a sharpe, vnpleasant, and wild Wine, which notwithstanding serueth the thirstie Labourers and Hindes of that Countrey to quench their thirst withall in the great heat of burning Agues. This drinke is called *Pignette*.

Chap. L.

Of preseruing of Fruits.

Marmalade.

FOr to make Marmalade, prouide your Quinces verie 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 Searce or Strainer that is verie 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 coale fire, mixe them well by stirring them diligently with a broad spatule of wood, and let that your boiling continue till they be sufficiently boiled; which is, when you see that it leaueth altogether to cleaue vnto or hang vpon the sides of the vessell, as being the verie marke of the perfect and sufficient boiling. If you be disposed to put any spice into it, as Cinnamon, Cloues, Nutmegs, and Ginger, you must doe it in the end of the boiling of them, and then also stirre it well about with the spatule. After the same manner you may preserue or make Marmalade of Peaches, Peares, and other fruits.

Marmalade of Oranges, Limons, or Citrons.

Yet there is another Marmalade which is made of Oranges, which desireth a great deale of more curiositie in the working, and is exceeding pleasant to tast, and indeed more wholesome than anie other Marmalade whatsoeuer, especially for those which are sicke and weake: for it fortifieth the stomacke, and encreaseth appetite, it expelleth wind, and comforteth the vitall spirits. This Marmalade of Oranges is made in this manner: Take of the fairest and best Oranges you can get, not those which are called Ciuill, and haue a sweet tast, but those which are of a cleere, high, and bright colour, and are sowre in tast: then with a very sharpe knife pare away the vpper yellow rinde, I doe not meane to the white, but so exceeding thinne as is possible, taking away (as it were) but onely the smooth thinne skinne, and leauing the Orange as yellow as before, onely looking a little more blanke and rough: this done, you shall lay them in faire running water, pressing them so downe, that they may be all couered ouer with the water: then at the end of euerie fiue houres shift them into fresh waters, till (hauing layne full fiue or six houres in each of them) you cannot tast anie bitternesse in the water, but that it is sweet and pleasant as when it came out of the Fountaine, then you may be assured that they are steept ynough; so that then you shall take them forth of the water, and drie them with a fine cleane cloth: then to euerie pound of Oranges you shall take a pound of refined Sugar well beaten and searced, and six or eight spoonefuls of Damaske-Rose-water, and in the same you shall boile the Oranges till they burst, and become like vnto pappe, or pulpe, which you shall the more occasion, by continually stirring them with a spoone or spatule: then when they are fully broken ynough, you shall take them from the fire, and presently straine them through a cleane Strainer into your boxes, and so let them coole and stiffen. In this sort you may make Marmalade of Limons, Citrons, or anie other whole fruit, whose rinde is bitter, or vnpleasant. You may also, after this manner, preserue either Oranges, Limons, Citrons, or anie other such like fruit, obseruing not to let them boile vntill they breake, but keeping them in a verie moderate and gentle temper.

If you would make a laxatiue Marmalade, such as they vse at Lyons, looke into the 26. Chapter of this Booke.

To make gellie of Quinces.

To make good and excellent Gellie of Quinces, cleanse your Quinces that are verie ripe and yellow, taking out of them their kernels, then cut them in small quarters, without paring of them, for the skinne doth encrease the smell: whiles you are thus making of them cleane, and cutting them in quarters, cast them presently into a

basin

basin full of vvater: for if they be not cast into vvater so soone as they be thus chopt in peeces, they vvill become blacke: boyle them in a great quantitie of water, vntill such time as they be almost become like pap meat: vvhen they are sufficiently boyled strayne this water through a new linnen cloth that is good and thicke, and that euen all the decoction, and so strongly as possibly you can. To this decoction thus strained, adde the fourth part of fine sugar: cause all to boyle vpon a reasonable coale fire, so long as till in the end you perceiue it verie neere perfectly boyled, 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 boyled, if you find it cleauing like glue vnto the oyle, and therefore you must then put it in boxes.

To preserue Walnuts: Gather vvalnuts whiles they are small, tender and greene vvith their rinde and all, and make many small holes therein, and after lay them to steepe in vvater eleuen or twelue dayes, more or lesse, cleanse then from the skinne that lyeth vpon the shell, vvithout shaling of them, and boyle them in clarified Sugar a long time, still putting vnto them more and more clarified Sugar, because the long boyling vvill make great vvaste: in the end put them into vessells with cloues, ginger, and cinnamome, but lesse of cloues than of any of the rest, because they would make them ouer bitter. Another vvay to preserue 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 dayes (more or lesse according as you shall perceiue them to become tender) in pure water, vvhich must be changed euerie day three or foure times: boyle them yet afterward to make them more tender: being boyled, drie them in the shadow of the Sunne, or vvipe them drie with a linnen cloth, afterward pricke them with cinnamome and cloues: In the end, set them a boyling in clarified sugar, so long till the sugar be boyled vp to the consistence of a sirope, afterward put them in tinne or earthen vessells made for the purpose, together vvith the sirope vvherein they were boyled. Others doe 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 yron (for yron vvould make it more blacke) and let it steepe in water often changed, and then boyle it till it be tender: being tender, they cast it by and by into verie 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 cinnamome: they put it thus in vessells, and couer it with sirope to keepe it in: if it happen that after some small time the sirope become too thin, then they boyle it againe, and put it againe into the vessell: this is the way to keepe walnuts alwaies greene, according to their naturall colour. In steed of sugar or honie to make liquid preserues, you may for need vse cute, such as we will intreat of in the fift Booke: vvhich cute or boyled vvine is of no lesse sweetnesse and goodnesse than honie or sugar.

To preserue Walnuts.

Cute wine to be vsed in steed of hony or sugar.

To preserue pills of Cytrons or Oranges: chuse great pills of Cytrons or of Oranges, or of Assyrian Cytrons cut in foure or six peeces, cleanse them from their inward skin and pippins, steepe them in cleare vvater for the space of nine daies, changing the water the fifth day: vvhen the nine daies are past, put them againe in cleare vvater to steepe vntill they become sweet, and haue lost their bitternesse, and withall appeare cleare and transparent, which is a signe of their sufficient watering: afterward, boyle them in a vessel of brasse that is cleane, or in a leaden vessel so long as til they be tender; vvhen they haue cast out all their waterishnesse, 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 boyle 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-vvater thicke ynough of consistence, that so it may affoord them as it vvere a crust, you may if you vvill aromatize them with a little Amber and Muske.

Preserues of Orange pills.

To preserue whole Peaches, you must pill them and cleanse them as carefully as may be, and after boyle them whole or cut in quarters, in a sufficient thin Iulep, not to

The preserue of Peaches.

boile them to the full, but onely to boile out their wateriſhneſſe, 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 ſirrup wherein they haue boyled. For their longer keeping, you may aromatize them with Cinnamon or Muske. This manner of preſeruing of whole Peaches, is generall for the preſeruing of all other groſſe fruits, as Peares, Quinces, Apples, Abricots, ſmall Peaches, and timely Peaches.

Preſerued Abricots. Small Peaches. Peares. Apples. Timely Peaches.

To preſerue Cherries, Ceruiſes, Gooſeberries, &c.

To preſerue Cherries, you muſt chuſe the faireſt ſowre Cherries that you can, full ripe (for if they be not full ripe, in boiling them toward the end, you ſhall find nothing but skinne 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 ſcumme 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 ſirrup wherein they haue boiled: notwithſtanding, if the ſirrup ſhould ſtill ſeeme wateriſh, boile it more perfectly. Otherwiſe, and better: put apart ſome quantitie of your ſaid ſowre Cherries which you ſhall preſſe to haue a ſufficient quantitie of iuice: in this iuice ſo ſoone as you haue preſſed it out, melt your ſugar, and (not in anie other liquor) boile them together preſently, and in boiling, ſcumme 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 anie ſtirring of them, but looking well to the ſcumming of them with a ſpatule: ſtirre them not from off the fire vntill they be perfectly boiled, and that you ſhall diſcerne, if you ſee the ſirrup dropt vpon a trencher to fall into drops that doe 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.

To preſerue Barberries.

For the preſeruing of Barberries, you ſhall take the faireſt and goodlieſt bunches of Barberries that you can find, being gotten verie drie from the tops of the trees, and as neere as you can from the Sunne ſide thereof, being fully ripe, and of one entire colour: then with a pinne or needle you ſhall open the ſide, and pick out all the ſtones or kernels from the ſame: then to euerie bare pound of theſe Barberries thus ſtoned, you ſhall take a pound downe weight of fine ſugar well beaten and ſearced, and ſo boile them on a gentle charcoale fire, till the ſirrup be thicke: then let them coole, and afterward pot them vp, being ſure to couer them all ouer with the ſirrup.

Of Conſerue.

But if you intend to make Conſerue of them, then you ſhall not need to ſtone them, but onely picke them cleane from their branches, taking all the ſound berries, and caſting away all that are vnſound or ſpotted, and ſo boile them in their ſugar ouer a hot fire vntill they burſt, ſtirring them continually with a ſpatule of wood or ſteele made for the purpoſe: and then ſtraine them through a ſtrainer, not exceeding fine, and ſqueeſe them ſo ſoone as is poſſible: then being cooled, pot it vp, and vſe it as you ſhall haue neceſſarie occaſion. This Conſerue is moſt excellent againſt burning feauers, or other peſtilent diſeaſes, growing from inflammation or corruption of the bloud: it comforteth the ſtomack, and begets an appetite: it cheareth all the ſpirits: and being drunke in Iuleps, bringeth the bloud to his true qualitie, and taketh away all thirſt, inflammation, or roughneſſe in the throat or mouth: it is alſo good for anie heat in the liuer.

Paſt of Plums and other fruits

For to haue paſte of Plums: firſt boile the Plums with a little water, ſtirring them oftentimes, that they may not burne too: afterward ſtraine and force them through a ſearce, and weigh them, that ſo you may put thereto for euerie pound foure 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 drie three daies, and then ſhut them vp: and in caſe that they grow moiſt, or that there ſpring forth anie water out of them,

them, you must lay them in the Sunne againe. This patterne of making this paste, may serue generally for the making of paste of anie other fruits, as Peares, Apples, Cherries, and Peaches, saue that you must haue respect vnto the quantitie of Sugar, which shall be more or lesse, according to the more or lesse moistnesse of the fruits which you are determined to make vp in paste.

To keepe Peaches, or other fruits: take Peaches, or other fruits which you would keepe, when it is faire weather and drie, and opening them in the middest, take out the stone: then lay them all one day to drie 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 drie, and vntill they haue gotten a sufficient crust, and after keepe them at your pleasure. *To keepe Peaches and other fruits.*

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 twice so manie ashes as lime, and let them steepe in that sort the space of 24. houres:) after you shall take them out, and wash them foure or fiue times in warme water: afterward you shal put them in a stone or glasse vessell with salt water, and this you shall change euerie three moneths, and mingle amongst them common Thyme, wild Thyme, Anniseed, or the ribbes and boughes of Fennell: and thus you may keepe them a long time. *To keepe Oliues.*

To preserue Oliues: lay white Oliues to steepe six daies in a vessell of Sea-water, and vpon them powre the iuice of Grapes as it commeth from the presse, but fill not the vessell too full, 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 doe 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, drie them in the shadow, in a place that is open for the wind to enter, then put them vp in an earthen vessell filled with honey, mixing therewithall some Spices. *The preserue of Olive.*

Filberds or small Hasel-Nuts may be preserued two seuerall waies, that is to say, either in the shell, or without, by the kernell onely. To preserue them in the shell, and to haue them verie full, large, and pleasant in tast, you shall take a large earthen pot, as wide in the bottome as at the mouth, and then first lay therein a pretie thicke layre of Nuts, and then strew vpon them a handfull of Bay salt, then lay another layre of Nuts and an handfull of Bay salt, and thus doe layre vpon layre, till you haue filled the pot vp to the top: then couer it with leather & parchment exceeding close: which done, lay a smooth stone on the top of it, and then dig a hole in the earth in some drie vault or cellar, and set the pot therein, and couer it all ouer with the earth, and this wil keepe them all the yeare, or diuers yeares, in as good strength, fulnesse, and sweetnesse, as if they were but newly gotten from the trees. Some vse only to burie these pots thus filled in red or yellow sand: and some vse not to burie them at all, but to keepe them in a low, coole, and moist vault: and surely anie will doe well, but the first is the best, and maketh them most full, and to haue the pleasantest rellish. But if you would preserue them without the shels in the kernels only, then you shall open them, and pick off the vpper red hull or skin, and in all points doe to them as was taught you before for the Walnut. *To preserue Filberds, or small Nuts.*

To make Quince-cakes thin, and as it were almost transparent, you shall take your Quinces and pare them, and cut them in slices from the chore, then take weight for weight of refined sugar beaten and well searced, and onely moistened with Damaske Rosewater, and in it boile your Quinces till it be thick, and then take it forth, and drie it vpon a flat plate-dish ouer a soft fire, not leauing to stirre it with a spoone or slice till it be hard: then put it into a stone-mortar, and beat it very well, and if you find that it wanteth sugar, then as you beat it, strew in more sugar, till it haue the tast you desire: then being come to a paste, take it out of the mortar, and rowle it forth into verie thin cakes, and so print it: and in this manner you may make thin cakes of anie manner of fruit you please whatsoeuer. *Quince-cakes.*

Diuersitie of colours.

If you will make your Pastes, Cakes, Marmalades, Preserues, or Conserues of diuers colours, as red, vvhite, or betweene both; you shall doe as followeth: first, if you vvill haue your paste or marmalade red, you shall take your Quinces, Apples, Peares, Oranges, or what other fruit you please, and after you haue pared or rined them, you shall cut them in halfes, and chore such as are to be chored, then take weight for weight of refined sugar, and to euerie pound of sugar a quart of faire running water, and boyle them in the same ouer a verie soft fire, and turne them ouer many times, and couer them verie close with a pewter-dish, obseruing euer, that the longer they are in boyling, the better and more ruddie will the colour be; then when they be soft, take your knife and cut them crosse ouer the tops, that the sirrop may passe through them, and make the colour entire, then take vp some of the sirrop and coole it vpon a sawcer, and when you see it begin to be thick, then breake your Quinces with a slice, or a spoone, as small as is possible, then strame it, and boxe it after you haue strewed sugar in the boxes: or if you will haue it in paste or cakes, then vse it as is before said of the Quince cakes, and so mould it, and roll it forth. Now if you will haue it of a pure white colour, you must in all points vse your Quinces, Apples, Peares, Oranges, or other fruit, as is beforesaid, onely you must take but to euerie pound of Sugar a pint of water, and you must boile them as fast as is possible, and not couer them at all, but suffer the ayre to passe away as freely as may be. Now if you will haue it of a carnation, or more pale colour, then you shall take a pint and a halfe of water to a pound of Sugar, and a pound of Fruit, and you shall so couer it with a Pewter dish, that at one corner of the same a little of the ayre or smoake may passe away, and no more: and thus obserue, that the more ayre you suffer to goe away, the paler the colour will be: and in this case you shall neyther suffer it to boile exceeding fast, nor verie slow, but of a temperate and indifferent manner.

Cinnamon sticks.

If you will make artificiall Cinnamon stickes, so like vnto the true Cinnamon it selfe, that the one can hardly be iudged from the other, and yet the counterfeit to be a most delicate and pleasant sweet meat, and wholesome and soueraigne to be eaten: you shall take an ounce of the best Cinnamon, from which no water hath by anie meanes beene extracted, and beat it into verie fine powder, well searced: then take halfe a pound of refined Sugar also well beaten and searced, and mixe them verie well together: then take gumme Dragon the quantitie of a Hasel Nut, and steepe it in Rose-water, so as it may be thicke and verie glewie: then with it temper the Cinnamon and Rose-water, till you bring it to a fine paste: then worke it out with your hand, after that rowle it forth with your Rowling-Pinne, then print it, and lastly, fold it vp in the same manner that you see a Cinnamon sticke is folded vp. Now, if where you dissolue your gumme Dragon, you also dissolue with the same a graine or two of fat Muske, and also twice as much Ambergreece, it will be a great deale the better, and adde more pleasantnesse and delicacie of smell vnto the stickes.

Conserue of fruits.

To make Conserue generally of anie fruit whatsoeuer you please, either sweet or sowre, you shall take the fruit you intend to make Conserue of, and if it be stone fruit, you shall take out the stones; if other fruit, take away the chore, parings, and seedes, and then boile them in faire running water, to an indifferent good height: which done, you shall draine them away from the same, and put them into another cleane Vessell, either with white Wine, or claret Wine, according vnto the colour of the fruit which you conserue: and then boile them to a thicke pappe, breaking them with a Slice, or Spatule, as they boile, vntill all be brought into one substance: then vnto euerie bare pound of pulpe, if the fruit thereof be sweet, you shall take a bare pound of refined Sugar, beaten to fine powder: but if it be sowre fruit, as Cherries, Gooseberries, Barberries, Bulleys, Sloes, and such like, then vnto euerie bare pound of pulpe, you shall take a pound downe weight of refined Sugar in powder, and so stirre the Sugar and the pulpe verie well together vpon the fire: then taking it from the same, you must immediately, hot as it is, straine it

it through a middle ſtrainer cleane waſhed, and ſo letting it coole, then you may pot it vp.

But if you will make Conſerue of Flowers, Hearbes, Leaues, or ſuch like; as are Roſes, Violets, Gilloflowers, Mints, Baſill, and ſuch like: then you ſhall take the flowers or leaues from their ſtalkes, and with a paire of ſheeres cut away the tippes of the vpper ends of them, and the white ends at the roots thereof, leauing nothing but the heart and middle part thereof: which done, you ſhall put them into a ſtone Mortar, or into a rowling Mill, or woodden Brake, and there cruſh, grind, or bruiſe them, till they come to a ſoft ſubſtance, and be ſo like vnto a ſoft pulpe, that no part of the leaues or flowers may be diſcerned: then to euerie pound of that pulpe, as was before ſaid, take a pound of refined ſugar, beaten and ſearced into fine powder, giuing the ſweeter the leſſe, and the ſowre the more, and ſo beat them exceedingly well together, till the ſugar be generally diſperſed, and then pot it vp, and keepe it for your occaſions. *Conſerue of flowers.*

If you will make an excellent Leach of Dates, you ſhall take your Dates, and opening of them, take forth their ſtone, and the innermoſt white rind, and beat them in a ſtone Mortar with Sugar, Cinnamon, and Ginger, till they be well incorporated together: then take it forth of the Mortar, and worke it like a piece of paſte, and then rowle them forth, and print them: and either ſerue them moiſt, or drie them in a ſtooue, for either kind is excellent. *Leach of Dates.*

Chap. LI.

The manner of making of Oyles: that there are three ſorts of preparing of Oyles, and how you muſt make Oyle Oliue.

Ntreating in the ſecond Booke of the Oliue-tree, wee promiſed a briefe diſcourſe of the making of Oyles, a thing certainely verie profitable for our Countrey Houſe, in as much as Oyle is no leſſe profitable for mans life, nor of leſſe fruit and encreaſe vnto a good husband, than Wine: then it ſhall not be from the matter, if (after wee haue ſpoken largely of Gardens and Orchards, and eſpecially of the ordering of Oliue-trees, and other hearbes and trees whereof Oyles are prepared) we briefely doe ſpecifie the waies of making of Oyles.

And to ſay ſomething of Oyle in generall, Oyle may be made three waies: The firſt, by expreſſion, which is moſt common, and the chiefeſt amongſt the reſt: The ſecond, by impreſſion: and the third, by diſtillation or reſolution, after the manner of diſtilled waters: Wee will onely ſpeake of the two firſt in this place, reſeruing the third for the Diſcourſe which wee intend to make concerning Diſtillations in this Booke; although, in verie deed, wee haue not purpoſely reſolued to ſpeake exactly of the making of Oyles, becauſe it is a thing that properly belongeth not to the Husbandman, or his Hinde, but onely vnto a good Apothecarie.

To ſpeake then firſt of Oyle which is moſt vſefull and ſeruiceable for the Husbandman, becauſe it not onely benefiteth himſelfe and his familie, but alſo cureth his cattell of all manner of dangerous and corrupt diſeaſes: you ſhall vnderſtand, that it is the Oyle of Oats, which may be made either by expreſſion, impreſſion, or diſtillation: yet for your greater eaſe and readineſſe, to haue it vpon anie ſuddaine occaſion, you ſhall make it in this manner: Firſt, you ſhall take halfe a pecke, or a quarter of a pecke, of the goodlieſt, beſt, and fulleſt Oates you can procure, of which, the whiteſt are the beſt, and theſe you ſhall hull and breake from their huskes *Oyle of Oats.*

as cleane as is possible: then take a pottle or three quarts of new milke, and setting it vpon the fire, as soone as it is readie to seeth, you shall put into it halfe a pound of Allome beaten to powder, and stirre it about, and so let it stand an houre or two, in which time it will gather vnto a curd: then with your hands you shall presse downe the curd into the bottome of the Vessell, and then straine the Whay from it into another cleane Vessell, and presse the curd verie much, not leauing anie Whay in it that you can wring forth: then take that Whay, and put your Oates therein, and set it ouer a verie quicke fire, and boile it vntill you see the Oates breake, or be as soft as pappe: then take it from the fire, and powre it gently into a small Cullender, so as the Whay may softly draine from the same, without anie force or pressing at all: then when it hath almost left dropping, take a cleane Frying-panne, and put the Oates therein, and hold it ouer a gentle fire so long, as you shall see the smoake of the Oates ascend vpward: but so soone as you perceiue the smoake to stymmer or runne about the edges of the panne, you shall forthwith put the Oates into a fine cleane bagge of soft old Linnen, or Boulter, and so lay it into the Oyle-presse, and presse it with all the strength you can, and that which runneth from the same, is the Oyle thereof, which you shall receiue into a Glasse-vessell, and keepe it close and well stopped vp. In this manner, and with this Whay, you may also extract Oyle from anie hard substance either of Trees, Seedes, Leaues, Flowers, Graines, or what else soeuer, which hath anie concealed moisture remayning within it.

This Oyle of Oates is most excellent for the smoothing of the skinne, and taking away of itch, scabbe, or little pustules about the bodies of men or children: It also purgeth most gently and sweetly, and expelleth out of the bodie all manner of venimous and infectiue humours: it is also verie soueraigne against the stone or difficultie of vrine, being drunke with white Wine and a corroded Nutmeg: Also it feedeth much, and maketh a man strong and lustie. It is most soueraigne for anie inward disease in Cattell, or anie surfet taken by too violent labour: but especially it cureth all inward diseases in Horses, being giuen either with Beere, Ale, or Wine: but aboue the rest, it cureth the Glaunders, mourning of the Chyne, consumption of the Liuer, or rottennesse in the Lungs: and as it cureth these inward diseases, so also being inwardly taken (as aforesaid) it cureth all outward grieuances which come of inward corruption, as the Farcie, Maungie, Scabbe, Leprosie, Hide-bound, the euill habit of the bodie, and such like. And as for this manner of making of Oyles, although it be precisely none of the three wayes before rehearsed, but somewhat more grosse, yet seeing it fauoureth of the two first, which is expression and impression, and being so readie, perfect, and easie a thing for anie mans practise, it is no lesse to be embraced than anie of the other: for there is no place nor no necessitie void of those helpes and furtherances which are needfull in this Worke.

Oyle by expression.

The manner of making of Oyles by expression, belongeth not onely to Oliues, but also to manie other fruits and seedes, as common Nuts, Almonds, Nutmegs, Line-seed, Hempe-seed, and such other, whereof we will speake hereafter. Notwithstanding, in as much as the Oliue doth yeeld more Oyle than anie other fruit or seed, 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 anie other name bestowed vpon them, than that which of right appertaineth vnto the liquor which is pressed out of the Oliue: for which reason, when we speake of the Oyle of the Oliue, we onely say, Oyle; but when we make mention of other Oyles, we adde the name of the fruit or seed whereout it was pressed; as Oyle of Nutmegs, Oyle of sweet Almonds, and so of the rest: Wherefore we will begin to describe the manner and fashion of making the Oyle of Oliues.

Oyle the proper name of the liquor of Oliues.

What is necessarie before the making of the Oyle.

When therefore you haue first gathered your Oliues, and disposed of them in such manner as we haue spoken of in our second Booke, entreating of the Oliue-tree, consider diligently, if the place where the Oyle is to be pressed and made, be furnished of

of all necessarie things, that is to say, of fats or vessells to put your diuers sorts of oyles in: of scoopes of yron, to draw and emptie out the oyles: couers to couer the vessells; great and small spunges: pots to carrie out the oyle 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 oyle, in like manner as is vsed before the gathering of grapes. The milstones, oyle mills, and pressers must be cleane, as all the rest of the instruments seruing to make oyle: you must likewise haue made sufficient prouision of vvood to make good fires, therby to chafe and heat the roome a good vvhile before hand, vvhere the oyle shall be pressed, if so be it be not warmes ynough by his naturall situation: for all oylie liquors doe dissolue and run the more freely by the helpe of heat, as they do keepe in and cease to depart through cold. And for this cause it were requisite that your presser stood vpon the light and clearenesse of the South Sun, that so you may stand the lesse in need of fire and candle, when you goe about the pressing out of your oyle.

Milstones. Oyle mills. Pressers.

The South-Sun necessarie for the oyle presser.

All these things thus prepared, cause your seruants and vvorkemen to cull out and cleanse your oliues: when they are cleane, let them be carried forthwith to the presse, vnder vvhich they shall put them vvhole in new Willow baskets (for the Willow giueth great beautie vnto the oyle) to the end they may be pressed with as much leasure, and as softly as may be. It is true that it would be good before they were put vnder the presse to haue them troden vvith feet, in as much as the oyle troden vvith the feet is alwaies better, sweeter, clearer, and more delightsome to eat in salades, than that vvhich is pressed out: but seeing the treading of them is harder to doe than to presse them, the common making of oyle is in the presse: vvherefore before you put your oliues vnder the presse, it will not be amisse to breake their skinne and flesh with turning milstones, and that but gently, to the end that the kernell which spoyleth and corrupteth the taste of the oyle be not stirred: and afterward to soften and grind them most strongly in the presse, putting in thereto of salt foure pound to euerie bushell of oliues, and after to presse the bones or stones of the oliues by themselues. He that shall emptie the oyle out of the vessell vvhereinto it runneth from the presse, shall make three sorts of oyle, seperating 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 strayned or moued, is of a farre better taste than the second, and is called Virgines oyle, being verie beautifull and goodly, and fit for to vse with meat: the second being fitter for oyntments, and such other like vses: and the third for to burne in lampes. And yet further it will be 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 ayred and stirred, so much the more cleare it is, and without lees.

The Willow graceth the colour of the oyle.

Three sorts of oile of olive.

Virgins oyle.

The tunnes and vessells wherein the oyle is to be put, must be well dressed with pitch and gumme, made verie cleane (if they be old) with warme lee, and dried with a spunge, 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 vessells and sackes of Goats 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.

Vessells for oyle

The cellar where the vessells for oyle are to be set, shall be in some cold place; for as all liquors doe dissolue and become more fluent by heat; 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 enimies. This is the cause why the oyle-makers giue in charge aboue all things that there be no fire nor smoke made neere vnto the presses and cellars of oyle; because the taste of the oyle is spoyled by smoake and soote: so then it is meet if possibly it may be that the oyle cellars be situate towards the North, quite on the other side from the hot winds, as also that the oyle be put into glasse vessells or earthen pots, such as are the

Oyle-cellars.

The North is fittest for oyle cellars to stand vpon.

the pots of Beauuais, especially the oyle that is made of greene oliues that are not ripe, and is called oyle Omphacine.

Oile Omphacine

Frozen oyle.

If in the time of Winter oyle doth freeze together with his lees, you must put into it twice boyled salt, for it dissolueth and thaweth the Oyle, and cleareth it from all manner of mischiefe that can happen vnto it: neither need 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.

To keepe oyle from becomming ranke.

To keepe oyle from becomming ranke, melt vvaxe with oyle in equall quantitie, and therein mingle fried salt, then put it all in a vessell of oyle; and this same composition serueth also to mend it if it be alreadie ranke. Anise cast into the vessell performeth the same.

Troubled oyle.

If the oyle be troubled, purifie it at the Sunne or fire, or else cast into the vessell boyling water; prouided the vessell be not weake and in hazard of bursting.

Filthie oyle.

If the oyle be full of filthinesse, 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.

Stinking oyle.

If oyle haue got any stench or other euill smell: poune greene oliues, and cast them into the oile 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 oyle.

If the oyle be corrupt and putrified, hang in the vessell a handfull of the hearbe coriander, and cast in besides of the same diuers times, if you perceiue that the putrifaction is not taken away: or which is better, change the oyle his vessell: you shal likewise amend this fault, if you take grapes, and after you haue taken out the kernels, stampe them, and make them into lumpes to put into the vessell, and ten daies after change the oyle his vessell.

Cleare oyle.

Oyle will be verie cleare, if you stampe the barke and leaues of an oliue-tree with salt, put in all in a little knot or nodule, and hang the same in the vessell.

Sweet smelling oyle.

To make sweet smelling oyle: take Virgines 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 roots of cornflag, 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 oyle should spend it selfe) in a caldron of boyling water, let it stay therein the space of three houres to boyle at a little fire: after take it out, and let it rest some time, vntill you perceiue all to be incorporated together, then straine the oyle, and reserue it in some vessell well stopped for your vse.

Good oyle 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 oyle 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 oyle, it hath a singular vertue applied outwardly as is to be knowne by the answere of *Democritus*, vvho 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 oyle, and within with honie. And this is the cause vvhy *Hanniball* gaue in charge vnto his souldiers passing the mountaines, that they should arme their bodies vvith oyle, to keepe them from the injuries 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 all their bodie ouer to be annointed with oyle before they were to goe into the bathe: in like sort also, their vvrastlers and champions, before they entred the combate, did annoint all their bodie ouer with oyle, 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 obedient, and their members the more lustie and strong.

As concerning within the bodie, oyle hath no lesse vertue than vvithout; for that if it be taken inwardly, it softeneth the bellie, subdueth the malignitie of venimes, and causeth vomiting speedily: furthermore, if any venime 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 fiercenesse and malignitie thereof, there is nothing better than to lay a little liniment of new oyle thereupon. *To loosen the bellie.*

Oyle powred vpon vvine or any other liquor, keepeth it from spending it selfe: In like manner the Vinteners, wise ynough to keepe white Wine from waxing red, are vvont to cast vpon it a pint of Oyle-oliue. *A spent Wine.*

Oyle is altogether enemie to plants, especially gourds and cucumbers, which dye presently if a man place neere vnto them any vessell of oyle; or if that he which dresseth them be oylie, as vve haue said in the second Booke. *Oile an enemie to plants.*

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 yron tooles from rusting: oxen are helped to a good appetite, by having their fodder besprinkled with oyle lees: oyle lees are good to annoint the bottomes of chests wherein clothes are to be laid, for they driue away mothes: they are good also to giue light vnto the familie with some wood: to keepe sheepe from being scabbed, if they be annointed with the lees of oyle, as also to heale such as are alreadie scabbed: to cause vvood to burne and flame without smoake. *The vertues of the lees of oyle.*

Chap. LII.

How the Oyles of other Fruits and Seedes are made by expression.

THere are many other seeds and fruits 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 kernells, the kernells of pine Apples, Abricots, Cherries, Plums, Pistaces, Linseed, Rapeseed, Mustard-seed, Hempe-seed, the seed of Poppie, Henbane, Burnet, Citrons, Oranges, Apples, Peares, Cucumbers, Gourds, Melons, Citrulls, and other such like, whereof vve will speake particularly, to the end that we may giue to know what course is to be taken, and what maner and order is to be kept in euerie particular. *Oyles made by expression of many things.*

The oyle of sweet 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 woodden pestle, and make them vp in lumpes or little loaues, which you shall knead and vvorke with your hands at the vapour of vvarme vvater a long time, if you like it not better to warme them vpon hot ashes, or hot sand for the space of an houre, or in the Sunne the space of fiue houres: or else put them in a glasse vessell vvhich shall be vvarmed at the vapour of boyling vvater in a caldron: after put them in a haire cloth or hempen bagge, for to presse in a presse that hath his planke hollow and bending downeward: or betwixt presses whose plankes you haue heated: but here in this you must note, that the Almonds are not alwaies blanched before their oyle be drawne, because many times a mans leasure will not serue him to doe it: though indeed it be the best way to pill or blanch them, that so the oyle may come the more neat and pure: and to pill them rather vvith a knife than by the meanes of water, either warme or cold, for feare that through the mixture of vvater, there be caused to come forth great store of vvaterish and vnpleasant oyle. After that the Almonds haue beene thus pressed, you may bake the drosse vnder ashes, and vse them in steed of bread: you must obserue, that such manner of preparing of oyle of sweet almonds is onely to be vsed vvhen such oyle is to be taken at the mouth, to stay and take *The making of the oile of sweet almonds.* *The drosse of sweet almonds*

Womens throws Paine of the collicke and kidneyes.

take away the throws & 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 vvhite Wine, or with Aqua-vitæ: And this oyle is drawne oftentimes without fire or any other heat whatsoeuer: sometimes the almonds are fried to giue them a light drying, and after the oile is pressed out.

Oile for to make liniments.

The oyle of bitter Almonds is made of almonds fried in a frying-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 sorts of oyle out of sweet almonds: one appropriated vnto liniments to be applied vnto the outward parts of the bodie that are pained: the other seruing for perfumers: vvhich two are made of old sweet almonds sound and whole, and verie oylie by reason of their age: they must be fried in a frying-pan, and after pressed with weight or presses being close wrapped in a bagg, or haire cloth. The oyles of Pistaces, common vvalnuts, filberds, Indian nuts, the kernels of pine apples, cherries, seeds of gourds, cucumbers, melons, *Palma Christi*, the seed of hempe, line, pionie, henbane, wild saffron, stauesacre, and other fruits and oylie seeds, are pressed out after the same manner that the oyles of sweet almonds be: 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 weights vnder which they are to be pressed.

Oile of sweet almonds for perfumers.

Oyle-de-Bay.

Oyle of Bayes is thus prepared: Take ripe bay-berries and new, pound them, and make them into masses or small lumps: boyle 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 oyle; or else let all the water run out at some hole which shall be in the bottome of it, and the fat which stayeth behind is the oyle. Some doe not boyle the masses of bay-berries, but presse them from vnder a presse, and let the oyle fall downe into a vessell standing vnderneath with vvater: Otherwise, mixe an equall portion of bay-berries and oliues, pound them together, and presse out the oyle. The oyle of bayes is soueraigne to put in clysters for the paines of the cholick, and to make oyntments of for cold tumors, the palsie, shaking of quartaine agues, and cold affects of the sinews. After the same manner you may make the simple oyle of myrtles, Iuniper-berries, of the fruit of the masticke-tree, turpentine-tree, and Iuie: which is also verie 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 thereof afterward. You may likewise boyle bay-berries in oyle, and presse them out after: or else without any other mixture or preparation, you may put ripe and greene bay-berries in a bagge, and by weight or pressing draw out their oyle.

Collicke. Cold swellings.

Oyle of myrtles, iuniper, mastick tree, turpentine tree, and iuie berries.

Oyle of nutmegs

Oyle 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 heapes, and steepe them three daies in verie good Wine, after drie them in the shadow of the Sun two whole daies, then heat them reasonably in a frying-pan vpon the fire, sprinkling them with rosewater, and presently presse them out. You must note, that in this manner of drawing of oyle, which is done by expression, men are forced many times to sprinkle the matter with water or wine, to draw out the oyle both more easily, and in greater quantitie: so we see it practised sometimes in the expression of sweet almonds, that when they are too drie, there is some small quantity of water put vnto them: but vnto other things some Wine, as in oyle-de-baies, nutmegs, Iuniper-berries, and such like.

Chap. LIII.

How to make Oyles by impression.

THe Oyles made by impression are commonly compounded of Oyle oliue, because it is more temperate than others, easilier to be gotten, and retayning more exactly the quantitie of ingredients whether hote or cold. It is true, that verie often in place of Oyle oliue some take the oyle of sweet Almonds, Filberds, Cammomile, or such other, according as the occasion of things require, as you may know and vnderstand by particular description of such oyles. Whatsoeuer it is, there are three things to be considered in the making of oyles by impression: the heat, vvhich is the efficient cause of the making of the oyle: the qualitie of the ingredients; and the quantitie of them. As concerning the heat, vvhether it be of the fire, or of the Sunne, or of other things which yeeld heat, it must be measured according to the qualities of tenderness or hardnesse which shall be in the substances and matter: for flowers doe not craue so great a heat as fruits or roots; whereupon it commeth to passe, that for the composition of such oyles, men are oftentimes contented with the heat of the Sunne, or with the heat of boyling water: otherwise called *Maries*-bath, or the double vessell. And I for mine owne part am of this mind, that for the making of these oyles there ought not any coale fire to be vsed, nor yet any other kind of fire, but rather the helpe of *Maries*-bath: For as by the gentle and milde heat of *Maries*-bath, all the parts of the ingredients are kept, and the oyle well prepared and digested: so by the heat of a violent and forcible fire, there followeth rather the exhalation or combustion of oylie things, than any digestion. The preparing therefore of such oyles as haue need of a greater heat than that of the Sun, will be a greater deale the better, if you put the matter, out of which you draw the oyle, in a glasse or tin vessell for to be infused in oyle mingled with Wine or vvater, or other conuenient liquor, or without liquor, 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 somewhat boyling; or (which is better) the vessell not infused or standing in the water, but rather receiuing onely the vapour of the boyling vvater that is in the caldron, those three daies being spent, you may presse out the things, which you shall haue infused, strayning and forcing them through some strong strainer and thicke linnen: and afterward to put in other new ingredients if it be needfull (that is to say) vntill the liquors which you haue mingled with the oyle, or the humiditie and moisture which may rise of the ingredients be consumed, and that the oyle 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 oyles 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 coale fire, causing it to boyle with a small fire vntill the liquor put vnto the oyle or the moisture of the ingredients be consumed: and after strayning of them after the manner that hath beene sayde before.

Oyle made by impression.

Three things to be considered in making oyles by impression.

Oyles of flowers

To make oyles by impression in Maries-bath.

Furthermore it vvill be discerned that the oyle hath exactly drawne out the vertues of the ingredients, and that the liquor mingled with the oyle or moisture of the ingredients is consumed, if with a spatule or sticke of vvood you cast some few drops of the said oyle into the fire: for if they be all on a flame by and by, it is a signe that it is pure and neat, but and if it spatter, there is yet some waterish moisture remaining in it: furthermore as it is boyling in the caldron, it will be spatering and casting vp bubbles, so long as there remayneth any of the liquor or moisture: but after that it is spent and boyled away, it will be quiet and peaceable: likewise a drop of oyle dropped

To know if the oyle be made.

ped vpon your hand, if there be any moiſture in it of wateriſhneſſe, it will ſhew it ſufficiently, for it will ſwim and ride aloft vpon the ſame.

The qualitie of the ingredients. As concerning the qualitie of the ingredients, it conſiſteth principally in this, that the ingredients are either hot or cold, or tender, or tough, and hard. If they be cold, there is need that they ſhould be often ſhifted and changed in the oyle, for the better imprinting of their cold qualitie in the oyle, for although that oyle oliue be temperate, notwithſtanding it inclineth more vnto heat and a firie nature, than otherwiſe: ſo that it is requiſite to change the ingredients often, and to put new in their places for that cauſe; yea, and in regard thereof to waſh the oyle in ſome common water, as we will further declare in ſpeaking of oyle of roſes: if the ingredients be hot, it is ſufficient once onely to change them for the compoſition of hot oyles, and that by reaſon of the affinitie and agreement betwixt the Oyle and the hot things.

Cold oyles. Hot. Tender. Hard.

Hot oyles.

Of the tenderneſſe or hardneſſe of the ingredients. If the ingredients be hard, and not eaſily digeſted, and imparting their properties vnto the oyle, they muſt be infuſed before they be boyled, and alſo there muſt be put vnto their decoction ſome liquor, as Wine, or ſome conuenient iuice or other liquor, as well 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 heat of the Sunne, or vpon a ſlow fire without any boyling: and this way fitteth flowers: ſometime a light boyling without any infuſion, as many aromaticall things.

Oyles made of liuing things or their parts. And as concerning the qualitie of the ingredients, you muſt obſerue that oyles by impreſſion are made, not onely of the parts of plants, but of liuing things, their parts and excrement, vvherein there muſt not be any ſhifting, changing, or renewing: and beſides theſe, there is no other thing to be obſerued; except that if the beaſts be ſmall, that then they be killed in the oyle, as is vſed in oyle of ſcorpions, ſerpents, frogs, and piſmires: but and if they be great, they muſt be firſt killed, then bowelled, and laſtly, boyled in the oyle, as is done in the oyle of Foxes.

The quantitie of the ingredients. Touching the quantitie of the ingredients, by which the oyles made by impreſſion are called ſimple or compound, you muſt haue regard to ſee that when the oyle is compound, that this order be followed, that is, to take the ingredients of greateſt and hardeſt ſubſtance, and to infuſe them three daies: afterward thoſe of leſſe ſubſtance two daies: and thoſe which are the moſt tender, ſubtile, and aromaticall one day, and one night: and then afterward to boyle them in order, ſtrayning them but once, and reſeruing your Gums to mixe and diſſolue with the ſaid ſtrayned oyle, according as it ſhall be requiſit, if ſo be that any gums doe goe into any ſuch oyles.

CHAP. LIIII.

A deſcription of the Oyles made by impreſſion.

Oyle of Roſes. AS for Oyle of Roſes, it is thus prepared: Take of oyle of new oliues ſo much as you ſhall thinke needfull, that is to ſay, ſufficiently to infuſe your roſes in: vvaſh it diligently, as well to coole it, and make it more temperate, as alſo for to make it the more pure, if in caſe it ſhould be any vvhit ſalt or feculent, and thicke of the Lees. Such vvaſhing is made with an equall portion of water and oyle, ſtirring them together in a veſſell, vntill ſuch time as they be mingled and incorporated, and then ſo leauing them till they ſeperate themſelues one from another againe: vvhich being come to paſſe, there ſhall be a hole made in the bottome of the veſſell vvhere they are to let the vvater runne out: after, there muſt other vvater be put in to beate with the oyle as before, and this ſhall thus be gone ouer three or foure times: but and if there be any haſt to be made in this vva-

ſhing

ſhing of the oyle, then the veſſell ſhall be kept in ſome warme place, to the end that the oyle and water may be the ſooner ſeuered: and you muſt note that the oyle is not to be waſhed on this faſhion, except it be for cooling oyles, as oyle of Roſes, Violets, and ſuch like: it is verie true, that there will be no need to waſh any oyle at all, if you haue the oyle of greene oliues called Omphacine. This waſhing of oyle being finiſhed, haue in readineſſe a ſufficient quantitie of blowne Roſes, put them to infuſe in this waſhed oyle, in a veſſel hauing a narrow mouth, like a pitcher or a glaſſe bottle, or ſome one of Tin, and filled vp within a quarter of the top, and afterward well cloſed and ſtopt: ſet them in this ſort in the Sunne, or ſome warme place, for the ſpace of ſeuen daies, boyle them afterward in a double veſſell in boyling water, as we haue ſaid, or elſe boyle them in a braſſe kettle vpon a ſmall fire without any flame for the ſpace of two or three houres: vvhen the oyle hath boyled and waſted one part of the moiſture that was in it, it will be conuenient to ſtraine it through a ſtrong ſtrayner, 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 ſtrayned, ſome put into it as much water of the infuſion of other Roſes, infuſed in water, as there is Oyle; then you ſhall ſet it in the Sunne for the ſpace of fortie dayes, which infuſion may be ſeuered from the oyle afterward as the water wherewith the oyle was vvaſhed. Notwithſtanding it may be ſufficient to take the infuſion of the Roſes in oyle onely, vvithout the putting of other vvater in the infuſion. Some mingle now and then in the decoction of Roſes a little vvine, or juice of freſh Roſes to keepe the oyle from burning, or that in boyling it ſhould not get any loathſome ſmell. You muſt further note, that ſome prepare and make two ſorts of oyle of Roſes: one oyle of ripe oliues, and roſes all opened and ſpred, vvhich are the better if they be red: the other oyle is made of roſes being yet in the bud, with the oyle of greene and vnripe oliues: or if you haue not any of this oyle Omphacine, you ſhall make it with common oyle and verjuice boyled together, to the conſumption of the juice. This is more cooling, aſtringent, and repercuſſiue: the other more digeſtiue, dicuſſiue, and anodine or aſſuaging of paynes.

Two ſorts of oyle of Roſes.

Some there are which ſometimes make this oyle of Roſes without oyle 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 kind of oyle is verie fragrant and ſweet.

A new kind of making of oyle of Roſes.

This manner of making of oyles may be followed in the compounding of oyles, either cold or temperate and ſimple, ſuch as are the oyle of violets, cammomile, 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 mulleine flowers, jeſamine flowers, poppie flowers, or of the leaues and heads of poppie, of lettuſe leaues, and white water lillie flowers, to the compounding of which oyles, you muſt note that for want of oyle of greene oliues, you may take the oyle of ſweet almonds newly drawn, or of filberds, if it haue beene firſt waſht.

Oyle of Cammomile, Melilote. Yellow Violets. Corneflag. Elder-tree flowers. White mulleine flowers. Jaſmin. Poppie, Lettuſes Water Lillie flowers.

Oyle of Quinces: Take whole Quinces with the rindes when they are verie ripe, but caſt away their kernells, then ſtampe them, and infuſe them in oyle Omphacine in the Sunne fiue dayes, or elſe in oyle waſhed as vve haue ſaid before: afterward, boyle them with equall portion of the juice of Quinces in a double veſſell the ſpace of foure houres: renew the fleſh and juice of Quinces three or foure times, the old being made away, ſet them in the Sunne againe, and boyle them: afterward ſtrayne all, and keepe it in a veſſell for your vſe: you ſhall draw greater ſtore of the juice of your Quinces, if you cruſh them well, and bruiſe them, rather than if you cut them in peeces.

Oyle of Quinces.

Oyle of Maſticke: you muſt take oyle of Roſes, or oyle Omphacine, or of Quinces, three pound, of good wine eight ounces, of maſticke powdred and put vnto the reſt toward the end (for it will not endure much boyling) three ounces: boyle them all together to the conſumption of the vvine in ſtirring it oft, to the end that the maſticke may be melted and mixt with the oyle.

Oyle of Maſticke.

Oyle of Elder-tree.

Oyle of the flowers of the Elder-tree: Fill a glasse bottle full of vvashed oyle, or oyle Omphacine, put therein a sufficient quantitie of Elder-tree flowers, set the bottle in the hot Sunne sixe dayes, after that presse them out, and put in others new; continue this all the time of Sommer vvhiles the flowers of Elder-tree are in force: this oyle is singular to comfort the sinews, assuage the paine of the ioynts, and to cleanse the skinne.

Oyle of S. Iohns wort.

Oyle of S. *Iohns*-wort: Infuse for three dayes the crops of S. *Iohns*-wort in verie fragrant Wine: after that, boyle all in a soft and gentle fort in *Maries*-bath, and after this some small space, strayne them out lightly: infuse againe in the same Wine as many dayes as nights the like quantitie of the tops of S. *Iohns*-wort, boyle them, and straine them as before: afterward, put vnto the liquor of Venice-Turpentine three ounces, of old oyle sixe ounces, of saffron a scruple, mixe them, and in the said *Maries*-bath boyle 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, especially those of the sinewes, and in the leane and cold parts, in the prickes of the sinews, paine of the teeth, conuulsions, tumours, and distillations. Some doe make this oyle after the simplest and singlest sort, making onely the flowers of Hypericum, vvhich they infuse all the Sommer in washt oyle in a glasse vessell, and setting it in the hot Sunne, keepe it.

Oyle of Rhue.

Oyle of Rhue: Take the leaues of Rhue somewhat dried, (because they are subject to a superfluous kind of moisture) set them to infuse in oyle a whole Sommer: Or better, change and renew them euerie eight dayes, strayning and pressing them out at euerie change: Sommer being gone, boyle them not, but straine, presse out, and keepe them in a vessell: after this manner are made the oyles of the Myrtle-tree, Wormewood, Marierom, Southernwood, Thyme, Cammomile, and such like: vnto which there is sometimes added the like quantitie of juice, or flowers, or leaues mingled with oyle: ond so they are set in the Sunne.

Oyle of Myrtle-tree, Wormewood, Marierom, Southernwood, Thyme, and Aller.

Oyle of Spike.

Oyle of Spike: Take true Spike, or for want of it, lauander, to the quantitie of three ounces, of marierom, and baye-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 vvater: the infusion accomplished, boyle the whole together in a sufficient quantitie of oyle in a double vessell, the space of foure or fiue houres: this done, strayne it all and keepe the oyle for your vse: that is to say, for the cold ach of the stomacke, reines, bellie, matrix, and other parts.

Paine of the stomack, reines, bellie, and matrix.

Oyle of Foxes.

Oyle 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 skinne him: some take not out his bowells, but onely the excrements 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 boyling in salt brine, salt water, and sea vvater, of each a pint and a halfe, of oyle three pints, 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 say, so as that his bones and flesh doe part cleane asunder: strayne all through a strayner, and keepe it in a vessell to make liniments, for ache in the joynts, the sciatica, diseases of the sinewes, and paines of the reynes and backe.

Rheumes. weakness of sinews. Paines of the reins and back.

Oyle of Wormes.

Take Earth-wormes halfe a pound, vvash them throghly in vvhite Wine, then boyle them in two pound of Oyle oliue, and a little red Wine to the consumption of the Wine, strayne and presse it out all, and keepe the oyle: yet further, it vvould be good to put into this oyle some other vvormes, and leaue them there as long as the oyle lasteth. This oyle is singular good to comfort the stiffe sinews, and for the ache of the joynts.

Stiffe sinews. Paines of the ioynts.

Oyle of serpents

Oyle 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 joynts being vvell luted, but notwithstanding hauing a small hole aboue: set the pot neere

vnto

vnto the fire, that it may boyle halfe a day, to the end that all may be throughly boiled: then straine it through a linnen cloth, afterward pound it vvell in a mortar, and make an end of strayning that vvhich 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 heads and tayles (as is done in the making of Treacle) they boyle them in oyle, and vse the oyle for rebellious Ringwormes, and first buds of the leprosie.

Chap. LV.

A reuiew or suruay of Oyles made by distillation.

BVt the third manner of making of Oyles hath beene said to be by distillation or resolution, of which vve vvill speake, after vve haue spoken of the distilling of vvaters: but besides that, there is an other manner of drawing of oyle (though in certaine things it be done by expression) vvhich commeth verie neere vnto this third kind of making oyles by distillation: and it is practised in egges, vvheat, mustardseed, haye, barlie, tartar, brimstone, and others.

Oyle of Egges: Take the yolkes of egges roasted hard in water, or which is better, vnder the hot ashes, about thirtie, rubbe and chafe them a long time betwixt your hands, after frie them in a leaden pan, or in an earthen one vvell leaded at a soft fire, stir them and turne them oft with a ladle of vvood, vntill such time as they begin to be of a sad red, after presse them vvith the backe of the said ladle: or, which is better, put them betwixt two presses, to force out their oyle, as is done with oyle of Almonds: you shall haue great store of oyle to run out; vvhich is verie good to take away the spots of the skin, to heale ringwormes, to cause haire to grow againe, to cure fistulaes, and maligne vlcers, assuage paines, take away the roughnesse of the skin, to cure the chaps of the lips, hands, feet, 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 Oyle doe not boyle the egges hard, but frie them raw, and after by pressing them together in a bagge betwixt two presses, or vnder a presser, they presse out the Oyle. *Oyle of egges.*

Oyle of Wheat: Presse Wheat together betwixt two plates of Yron reasonably glowing and fire red, or verie hot, or betwixt a Marble-stone, and a thicke hot plate of Yron: receiue the Oyle into something vvhich distilleth from it: or else take away from Wheat his pill or rinde, and distill it after the manner of the Philosophers Oyle: this Oyle applied hote, taketh away the spots of the skinne, healeth ringwormes, fistulaes, and chops in the skinne, and the scaill or skurfe in little children: the oyles of barlie, mustard-seed, and other oylie seeds are thus prepared and made. *The oyle of Wheat.* *Ringwormes.* *Fistulaes.* *Chops in the skinne.*

Oyle of Haye: Set on fire a quantitie of Haye, after quench it againe by and by, then lay it vpon coales, and vvhiles it is smothering and smoaking, spread it vpon a plate of yron, and there will gather vpon it an oyle liquor, vvhich is called oyle of Haye: and this is singular good for ringwormes, and S. *Anthonies* fire, scabbes, and roughnesse of the skinne. *Oyle of Haye.* *Ringwormes.* *S. Anthonies fire.*

Oyle of Tartar: Take Tartar, that is to say, the dried 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 scummie, but that vvhich cleaueth round about vnto the staues of the vessell wherein there hath *Oyle of Tartar.*

beene verie good white vvine, rather than red: make it into fine powder, and make it fast in a linnen cloth, infuse it in verie good vvhite Vinegar: or not infusing it, calcine it, and put it in a Hypocras bagge, or in an oxes or swines bladder: afterward, roast it vnder hot embers, vntill it become vvhite: you shall know if it be sufficiently burned, by the growing of it cleare, and a little burning of your tongue, if you touch it therewith. Notwithstanding you may blanch or whiten it, if (as some hold it for a great secret) you boyle it a long time in vvater, scumming it often: powder it yet once againe, or (which is better) calcine it: then put it in the bottome of an hypocras bagge, that is to say, of a bagge vvhich hath a sharpe and narrow bottome, and this you shall hang vp on high at some staffe in a caue or other cold place for the space of eight dayes, vntill it be resolued into Oyle: and if the Oyle doe not drop of it selfe, then graspe it hard, and presse it out, putting vnderneath some glasse viole, to receiue the liquor that shall distill, vvhich is not indeed properly on Oyle, but a verie sharpe vvater, or a reddish kind of humour. This humour is good for all sorts of itchings, Ring-wormes, Scurfes, Scalles, and other such diseases of the skinne: It maketh the face vvhite, cleane, and seeming young: it taketh away vvrinkles and spots, comming of a melancholicke humour: It maketh the haire of a straw colour: hindereth the falling of the haire, and causeth it being falne to grow againe: it whiteneth copper and siluer: and taketh away the spots of linnens, if they be rubd with this oyle hot.

Oyle of Brimstone.

Oyle of Brimstone: hang in some high place vvith a vvire, or doues-tayle of yron, a glasse vessell in fashion like a Bell or Bason, couered aboue with Potters earth of a cubite vvidenesse; vnderneath vvhich neere the length of a cubite you shall place another vessell of glasse, being broad and verie large, able to hold much, such like as is the dish or bason vsually serued vvith Ewers: in the middest whereof there shall be a little vessell of earth in forme of a little pot, vvhich shall contayne the Brimstone, vvhich must be of that vvhich is called quicke and Virgins Brimstone, and not artificiall Brimstone: vvhen you intend to make your Oyle of Brimstone to distill, you shall take a sheete of yron of foure fingers thicknesse, and fire red: this you shall cast into the small pot vvith Brimstone, to make the said Brimstone burne and flame: the smoake comming forth of the Godet vvill ascend vp to the vessell hanging aboue, vvherein after a short time it vvill be turned into Oyle, vvhich Oyle will thence distill into the vessell below. Gather this Oyle, and reserue it in a vessell well stopt, for to vse for the curing of Gangrenes, Fistulaes, vlcers of the mouth, and Ring-wormes, if you doe but touch them vvith this Oyle vpon the end of a feather. It is singular good against rebellious vlcers comming of the pockes: some giue it to drinke with balme water in the morning vnto such as are but scarce cured and recouered of the pockes, to the end it may driue out the disease. The oyle of Brimstone may be made otherwise: boyle Brimstone in Aqua-vitæ, vntill there begin an oylie substance to swim aloft: gather this liquor with a woollen or linnen cloth, or with a little spoone: you must sometime renew your Aqua-vitæ, vntill you haue gathered oyle ynough: if presently after bathing your selfe you annoint with this oyle your bodie infected with Quick-siluer, you shall expell and draw forth the said Quick-siluer.

Gangrenes. Fistulaes. Vlcers. Ring-wormes.

But concerning all these Oyles, see more in our Booke of secret remedies and medicines.

CHAP.

Chap. LVII.

A description of certaine artificiall balmes.

BVt it is vvell and sufficiently knowne, how that now the true and naturall balme is no vvhere to be found, and that in place thereof the industrie and skill of man hath inuented Oyles which approach and draw neere in vertues and faculties vnto the true balme: now therefore be it in like manner knowne that these Oyles are made either by distillation or impression: and that vve 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 things, as you shall further perceiue by our Booke of secret remedies.

Balme of the maruellous apples: Take the maruellous apples either with or without kernells, but verie ripe, put them in a vessell full of common oyle, either old or new, or of the oyle of sweet 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, and let it remaine there one whole yeare, or else two, vvhich is the better; you may likewise make this oyle of the leaues and little cods without the fruit: some with the apples put together with the oile of sweet almonds or linseed oyle, doe joyne of liquid varnish one ounce for euerie pound of oyle: such an oyle is a singular balme for all wounds, inflammations of the breasts, and for the appeasing of outward paines and ache; for the burstmg of young 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, she annoint her secret parts therewith, and drinke of the powder of the leaues with vvhite Wine: it is also singular good for the paine of the hemorrhoides, being mingled with linseed oyle, or the oile of sweet almonds. We haue spoken of the maruellous apples in the second Booke, where we haue declared how that the hearbe whereupon they grow is called *Balsamina*, because it hath the vertue of balme. The oyles 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.

Balme of the maruellous apples.

Balsamine.

Oyle of the flowers of Rosemarie.

white mullein

Nicotian.

Paules betonie and ground Iuie.

Another balme: Take the fruit of the elme, the flowers of Hypericum, and the buds of Roses, put all together in a glasse bottle with oyle 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, strayne it and keepe the oyle for your vse.

Another: Take Gummi elemie foure ounces, oyle of vvormes, oyle of Roses, and Hypericon, of each two ounces, of Venice Turpentine two ounces; mix altogether and incorporate them vpon a coale fire afterward keepe it in little bottles.

A balme.

Another balme: Take the flowers and seeds of Hypericon foure handfulls, bruise them throughly, and set them in the Sunne the space of ten daies in a glasse bottle, with foure pound of old Oyle of Oliues, afterward presse them out carefully, and put againe as many moe flowers and seeds of Hypericon into the bottle, set it in the Sun againe tenne vvhole dayes: after presse it out all againe, and put thereunto as followeth; of oyle of dill, and of Venice Turpentine, of each a pound and a halfe, of Aqua-vitæ halfe a pound, of Mummia, vvood of Aloës, masticke, myrrhe, and Iuiegum, of each an ounce and a halfe, of the rosen of the pine-tree three ounces, saffron halfe an ounce, cloues, nutmegs, cinnamom, of each three drams: mix all together, and boile them three houres 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 oyle afterward for pains of the eares, wounds, fistulaes, cankers, *Noli me tangere*, & to annoint

A balme.

Paines of the eares.

Cankers,

annoint the backe bone a little before the fit of the ague come, vvhich beginneth of cold.

A balme of elme flowers.

Another balme: take the fruit of the elme, vvithin which you shall find a liquor like vnto oyle, put it whole into a strong viole, which viole you shall stop verie close, and burie for the space of fifteene daies in horse dung that is verie hot by reason of his being verie rotten, then set it in the Sunne for a certaine time, and after gather the cleare part that shall swimme aboue, and this vvill be vnto you a singular balme. Otherwise: gather all the liquor that you find in the fruit of elmes, put it in a strong viole, adding of the flowers of Hypericon and common oyle: stop vp the viole verie 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 briefe discourse of the distilling of Waters.

Chap. LVIII.

Of the profit and commoditie of distillation.

NOtwithstanding that distillation be the vvorke rather of a Philosopher or Alchymist (otherwise called an extracter of quintessences) than of a farmer or maister of a Countrie Farme: notwithstanding the profit thereof is so great, and the vse so laudible and necessarie, as that we take not the chiefe Lord of our countrie house to be furnished vvith all such singular commodities as vve desire, if he lacke the knowledge and practise of distillation; not that I vvould 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) men be now adaies: but onely that he 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 indeed such occupation is farre better beseeming either of them than him; for as much as the maistresse or dairie-woman hath the pettie affaires and businesses belonging to this our countrie Farme, and lying vvithin the doores, resigned and put ouer to her. Therefore let it not seeme strange in this point, if after our briefe intreatie of Oyles, vve discourse somewhat briefely, and according as a countrie thing requireth of the manner of distilling of vvaters, and extracting of oylie quintessences, out of such matter as our Countrie Farme shall affoord, vvhich we would should serue for the vse of the Farmers vvife, as well to relieue her folke withall, as to succour her needie neighbours in the time of sicknesse; as we see it to be the ordinarie custome of great Ladies, Gentlewomen, and Farmers vviues well and charitably disposed, who distill waters and prepare oyntments, and such other remedies, to succour and relieue the poore.

In leasure to take the opportunitie of leasure to go about distilling.

Chap.

Chap. LIX.

What Distillation is, and how manie sorts there be of Distillation.

I Will not trouble my selfe here with setting downe the partie which was the first inuentor of Distillation: as namely, whether it were some Physitian 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 of the vpper dish, and finding the bottome thereof all set with pearlie sweat, retaining the smell and sauour of the stewed Peare it selfe, inuented thereupon certaine instruments to draw out from all sorts of hearbes 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 be which may be distilled. *The inuentor or first finder out of distillation.*

Distillation, or the manner of distilling, is an art and meanes whereby is extracted ne 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 we see here below, that by the force and power of the Sunne manie vapours are lifted into the middle region of the ayre, 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 heat, but without heat 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 the meanes of a piece 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 only distilled without heat, but with cold: as namely, when the things which you would haue distilled are set in cold and moist places: as Oyle of Tartar is wont to be made, as also Oyle of Myrrhe, Dragons bloud, Otters, and other things. But howsoeuer, yet I would not haue the Mistresse of our Countrey 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 heat. True it is, that it is meet and requisite that shee should know the diuersities of heat, to the end she may procure such a heat as will best fit such matter and thing as shee is in hand withall, or to goe about: for some things craue the heat of a cleere fire, or of coale, or of the Sunne, or of hot embers, or of small sand, or of the filings of yron, 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 foure degrees of heat: 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 anie hurt it can doe: the second is a little hoter, but yet so, as that it may be well endured without anie annoyance or hurt, such as the heat of ashes or embers: the third is yet hoter than the second, and so, as that it may annoy and hurt one grieuously, if hee should hold anie part or member therein anie long time, such is the heat of small sand. The fourth is so vehement, as that it cannot without great paine very hardly be endured, and such is the heat of the scales of filings of yron. The first degree is fit to distill fine, subtle, and moist things, as flowers and cold simples, as Endiue, Lettuce, and such other: The second, for distilling of fine, subtle, and drie things: of that sort are all fragrant or smelling things, as Pepper, Cinnamome, Ginger, Cloues, and manie simples, as Wormewood, Sage, &c. The third, for to distill matter that is of thicke substance, and full of iuice, of which sort are manie roots. The fourth is proper for the distilling of mettals and minerall things,

Distillation.

Distilling without heat.

Distilling by a Filtre, Sand, vnbaked Earthpots, vessels of Iuie, glasse of Ferne.

To distill by cold.

Diuers sorts of heat.

things, as Allome, Arsenicke, &c. By this meanes it will come to passe, that the Mistresse of our Countrey House shall not haue anie thing brought vnto her, out of which shee will not be able to draw the waterie humour, and to distill clere and bright waters.

Chap. LX.

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 ripenesse 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, hearbes, flowers, and seedes when they are ripe; but liuing things, and the parts of them, when they are of middle age, as wee shall haue occasion to declare in his place. Now as concerning the ripenesse of rootes, hearbes, flowers, seedes, and fruits, we referre you to our second Booke, where wee 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 necessitie 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 means in part to renew 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 we 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 tast, 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 vnto the tast, and also more delightsome vnto the eye, than 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 mettall, like a Limbecke (as we shall by and by speake of) doe loose the best and most subtle parts of the substance of their matter, by suffering the same to vanish away in and into the ayre, and for that cause they doe not proue of so great vertue as their Plants. But howsoeuer it is, distilled waters are a great deale more pleasant vnto sicke persons, more readie for vse, better for medicines for the eyes, to make epithemes of for the heart and liuer, to make painting colours of, to put into perfumes, or other sweet things, as well for the vse of Physicke, as also for the delight and decking of the bodie, than the decoctions and iuices of Plants: and therefore there is great reason they should be distilled with greater heed and care.

The lasting of distilled waters.

It is most certaine also, that Waters distilled in *Maries* bath, especially those which are distilled in the vapour of boyling water, are not of long continuance, and hardly will last aboue a yeare: likewise you must renew them euerie yeare by distillation, circulation, or by distilling of them againe, putting them also into the Still againe with some new matter vpon the cake or drossie part, left vpon some former distillation: or else to distill them by a Filtre, whereof wee shall haue occasion to speake hereafter.

Chap. LXI.

What manner of vessels and instruments they must be wherein waters are to be distilled.

TWo vessels are needfull in distilling, which may be called by the common and generall word, a Limbeck: 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 cappe, head, or bell, being that whereinto the vapours are gathered and turned into water. This vessell hath sometimes a pipe, in shape like the bill of a bird, through which the water passeth drop by drop into a violl, or other like vessell: and sometimes it hath no beake or spout, and those are vsed in circulation. But these instruments doe differ much, as well in forme and shape, as in matter. It is true, that the first that were inuented were of Lead, like vnto a Bell, and did couer another vessell of Brasse that was full of matter to be distilled: this fashioned one is well ynough knowne and vsed euerie where, because it draweth out more store of water than anie other. Afterward there was another fashion inuented, by which manie vessels (euerie one hauing his Leaden head or couer seuerall) are heated together with one onely fire, set in a furnace made after the fashion of a vault, to the end, that with lesse cost and labour there might be drawne and distilled a great quantitie of water; the figure and forme whereof you may here see and behold.

What distilling vessels were first inuented.

But in as much as waters distilled in Lead doe not retaine their smell or tast at all, neither yet anie 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 distilled of sharpe, biting, and bitter plants, doe no whit resemble the same in the tast of their bitternesse and sharpenesse, but rather become vnsauourie sweet. Further, in as much (as *Galen* witnesseth) as the water which runneth through pipes of

Lead

Lead doth ſtirre vp oftentimes the bloudie flux in thoſe that drinke it, becauſe of his nature, which is of the ſubſtance of Mercurie: adde vnto theſe, that in as much as wee 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) ſpoyled 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 diſtill Aqua vitæ in, made of Wine, or of the lees of Wine, or 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 beake 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 of it is as you may ſee here.

Waters diſtilled in Maries bath.

The later and better aduiſed Phyſicians haue deuiſed a faſhion much better than the former, which is, to diſtill waters in *Maries* bath, that is to ſay, in the bath of ſome boyling water, or ouer the vapour of the ſame: for it is verie certaine, that ſuch waters are without all compariſon better, in as much as they doe exactly retaine, not onely the ſmell, but alſo the taſt, and other qualities of their plants: which happeneth, becauſe the bath of the boyling water, by his moiſture, retaineth, keepeth in, and preſerueth the more ſubtle parts of the plants, and by this meanes hinder and ſtay 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 a Limbecke of Lead, and thoſe that are diſtilled in *Maries* bath, as is betwixt Gold and Lead: becauſe they doe not onely retaine the proper qualities of their plants, that is to ſay, their ſmell and taſt; but likewiſe they become cleare, pure, and bright, without ſmelling anie thing of ſmoake, or burning: on the contrarie, the other alwaies hath a taſt of ſome ſtinke of the ſmoake, which doth not onely prouoke a luſt to vomit, as well in ſuch as be healthfull, as in them that be ſicke, but alſo procureth great hurt vnto the parts of the breaſt, ſtomacke, liuer, and other inward parts, by reaſon of ſome ill qualitie wherewith they are infected by the veſſels in which they are diſtilled. Which is eaſily perceiued

ceiued by the water of Wormewood distilled in a Leaden Limbecke, for it becommeth sweet and not bitter, like vnto the plant: and in like sort in all other manner of waters that are distilled of plants, and are of a hot temperature, and sharpe or bitter of tast: For the Leaden Limbecke receiuing vpon his superficiall part the vapours of hearbes which are hot in effect and operation, is easily corrupted in that his superficiall part, and turned into a verie subtle Ceruse, which afterward mingleth it selfe with the water, and bestoweth vpon them an vnsauourie sweetnesse: which is easie to be gathered and knowne by the white residence that setleth in such waters, especially if the Limbecke 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 hardnesse 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, and spread vpon hurdles made of reedes: but there befalleth no such accident to waters distilled in *Maries* bath: for the bitternesse of their tast is manifestly perceiued, as also their sharpenesse, sowrenesse, tartnesse, harshnesse, eagernesse, sweetnesse, and tastlesnesse, if they be distilled of bitter or biting plants, or yet of anie other tasts and qualities: and this falleth out so, because 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 wee haue said) of Brasse, as well the head as the bodie, but yet ouer-laid within with Tinne, are much better, and of greater vertue, than those which are distilled in a Limbecke of Lead, because the fire of the furnace cannot burne nor infect with anie smoake the matter that is within, seeing they are couered ouer and boile in water: but notwithstanding they doe not throughly retaine the vertues thereof, because of the mixture of the water, which smothereth and dulleth their force and vertues. Wherefore wee must needes commend as best the waters which are distilled in the double vessell, or ouer the vapour of boyling water, especially when as therewithall they are of a hot faculties. It is true, that amongst them, that sort is better which is distilled ouer the vapour of boyling water, than that which is distilled by putting the bodie containing the matter, into the boyling water, because it extracteth and draweth out the subtle parts therein a great deale better: albeit that both the sorts thereof are excellent good, neyther is there anie hurt at all in them, saue onely that they are not of so long lasting and continuance as others: but to helpe this in such things as need shall require, it will be good to distill one and the same thing often, that so you may alwaies haue them good.

An old Leaden Limbecke is better than a new.

The making of Ceruse.

The cause that maketh waters distilled in Maries bath to retaine their vertues.

Waters distilled in the instrument called the Bladder.

The waters distilled ouer the vapour of boyling water.

The durablenes of waters distilled in Maries bath.

But to come to our third kind of Instrument, which wee haue called the double vessell, or *Maries* bath, it consisteth of two parts: the one is a great vessell of Brasse, made in manner of a Beefe-pot, verie great, and rayfed high, furnished with a couering, and it is set in a furnace, and containeth in it boyling water: The other is the Limbecke, whose bodie is likewise of Brasse, so set within the couer of the Cauldron, as that the one resteth vpon the other, and that the one cannot be put in or taken away without the other: The head thereof is of Glasse or Tinne, or of baked earth: in the couering of which, there must be a hole made in that sort, as that it may be alwaies close: it would be at one of the corners thereof; and the vse of it is, to powre boyling water into the Cauldron, when the water within the same is diminished after long time of boyling: The fashion of it is as you may see here ouer the leafe.

There

There is another ſort of double veſſell, which containeth foure Limbeckes, whoſe bodies ſet within the bath, may be either of glaſſe or tinne, and their heads of glaſſe: beſides theſe foure, there is another ſtanding higher than the reſt, and is heated onely of the vapour of boyling water, which riſeth vp on high vnto it through a pipe, and this Limbeck maketh a better water than 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 anie 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 bodie, ſaue onely that the heads of euerie one muſt be ſo, as that it may be ſeparated from the bodie, and put to againe, when you haue anie need to diſtill water: the faſhion of it is ſuch as is here to be ſeene.

There

There are ſome that haue yet ſeene another ſort of double veſſell, and that a verie excellent one, whoſe bodie is Tinne, like vnto a great Vrinall, of the length of three good feet, verie wide and large below, and ſomewhat narrower aboue: The bottome or bellie thereof is ſet two good foot in boiling water, and the top ſtandeth out of the water a foot good, and that in a round hole made in the middeſt of the couer of the Cauldron. Vpon the top of this bodie is placed a head of Tinne, couered and compaſſed alſo with another veſſell of Tinne likewiſe, and much more large: this is to containe cold water, running into it through a Braſſe pipe or cocke: it is to ſtand vpon the top of a ſhanke, and that for to coole the Limbeck continually, that ſo the vapours riſing vp thither, may thicken the better, and be the ſooner turned into water. And becauſe it is not poſſible, but that the water which is contained in the veſſell that compaſſeth the Limbecke, ſhould become hot in ſucceſſion of time through the heat of the Limbecke: this veſſell hath a ſmall pipe or ſpout, at which the water ſo heated is vſed to be let runne out, turning the little pinne of the cocke; and it is filled againe preſently with cold water, which is made to runne down into it from a veſſel on high. But to the end the labour of emptying it ſo oft of his hot water, and putting in againe of cold, may be remedied, things may be ſo carried, as that from the veſſell which ſtandeth vpon the top of the pillar there may be cold water continually running into the veſſell compaſſing the Limbecke: and then it being once become hot, may be let out, as is ſaid before. And to the end that the cauldron 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 heat of the fire of the furnace; there is at the foot of the pillar another veſſell full of verie hot water, which is to be conueyed into the bath by a cock, 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 pillar 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 thickeneth 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 euerie ſide, round about it, manie earthen veſſels, glaſed within,

and fashioned like Vrinals, well luted with mortar of Potters clay, and euerie one couered with a head of Glasse, or baked earth: to their snouts there is fastened a violl with a good thicke thread, to receiue the water that distilleth. This furnace is heated, as we see, after the manner that the Germanes doe heat 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, vntill such time as the heat be somewhat abated, for feare that the plants, flowers, and such other things should be burnt. The mouth of the furnace must be alwaies stopped and fast shut, to the end that the heat may beat inward for the heating of so manie vessels. For the attending and ordering of this furnace, there are required manie seruants: some of them to looke vnto the fire; others to cast the hearbes into the bodies; and others, to put the heads vpon the bodies. By this likewise there may great store of waters be distilled, as some hundred pints in a night and a day: and these waters are a great deale better than those which are distilled in Leaden Limbeckes or Stillitories, or yet of other mettals, because they are not infected with anie fault or infection, which is a common companion of those which are made of mettall. This is the shape and forme of it.

There are other Instruments, the bodies whereof are of Brasse, Iron, or other mettall, hauing a long, thicke, and strait 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 quantitie, into water, and that the water may not tast or smell of the fire. Some in stead of this long necke and head, haue a pipe of Plate, or other mettall, verie long, and wrythen or wound about in forme of a Serpent (and for this reason is called a Serpentine) or made of manie parts, consisting of direct angles, and these passing through a bucket, or some such vessell full of water.

There are manie 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.

Fur-

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 choice 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 venimous qualitie more than in anie other mettall) sixtly, those of yron, especially when a man would distill anie thing that is hard to be distilled, and which must be applyed outwardly, and not taken inwardly. Such as are not afraid of the cost, doe vse vessels of Gold or of Siluer: but seeing all are not of one and equall efficacie, 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 than with Lead, or anie 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 Tinne. 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 be armed, must be heated by little and little, whether it be 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 bodie, 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 Receiuer, shall be a Glasse-violl, hauing a long necke, and the beake or spout of the head must goe into it; and these two, in like manner, may thus be fastened and closed together with the said mortar of Wisedome, least the water which shall distill, should euaporate verie much: notwithstanding, that we see sometimes some Receiuers of the fashion of Vrinals, which are not made fast vnto the beake of the head at all.

Chusing of the head.

Heads of Brasse and Copper.

How to order Glasse-stills.

Chap. LXII.

What manner of Furnaces must be prepared for the distilling of Waters.

THe fashion of the furnaces for the distilling of waters is diuers, as well in respect of the matter to be 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, and brought into what fashion one will; and fitted with fat earth; othersome are made of plaster onely; some of fat earth onely; but the best are made vvith cement, vvhites of egges, fat earth, and flockes of vvooll; others of beaten bricks, hards, horse-dung, sinewes of oxen, and fat earth. But as for their fashion, it must be answerable vnto the vessells 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 stones: all which you may find out by the sight of the eye in the patternes set downe before, and from which you may gather more instruction and more certaine direction, than by all the descriptions that wee can possibly make. Such furnaces as you may see with your eyes, must haue two bottomes; 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 Gridyron, hauing barres or roddes of yron passing

For the distilling of waters.

throughout from the one ſide to the other, quite ouerthwart the furnace; or elſe diuided into manie ſmall holes, that ſo the aſhes and ſmall coales of fire may fall through to the bottome below the more eaſily, and not ſtay behind to choake vp the fire that ſhould heat the Still. The vnderfloore may haue one or manie mouthes, for the more conuenient taking away of the aſhes which ſhall be gathered there on a heape: but as for that aboue, it muſt haue but one onely of a reaſonable bigneſſe 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 mind to amend it. Euerie one of the mouthes ſhall haue his ſtopple. For want of a furnace or matter for to make one, you may fit and ſet your Veſſell, Cauldron, or Bowle, vpon a brandrith, and kindle your fire vnderneath.

Chap. LXIII.

How the matter muſt be prepared before the waters be diſtilled.

IT is not ynough, that the furnace and inſtruments for diſtillation be made readie in ſuch ſort as wee haue ſaid: for the matter to be diſtilled muſt in like manner be prepared before that it be 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 be diſtilled in ſome liquor, not onely that it may be the more apt and eaſie to be diſtilled, but alſo to cauſe and procure greater ſtore of iuice to be in it: or elſe to helpe them to keepe their ſmell: or elſe to beſtow vpon them ſome new qualitie: or to encreaſe their force and vertues: or elſe for ſome other ends, as we will handle them in particular, and onely one. It is true, that this preparation is not neceſſarie for euerie matter: for ſome there are that need not anie infuſion or ſteeping, but rather to be 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 liquor, as is done in the diſtilling of drie Roſes and Camomill, which are wont to be ſprinkled onely with common water. Some ſpread them all a Summers night in faire weather vpon a Linnen cloth to take the dew, and after they be moiſt, to diſtill them. Such as are ſteeped and infuſed, lye in the Sunne, or are held ouer the fire, the ſpace of ſome halfe houre, or manie houres, a whole night, a whole day, 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 neceſſitie. Sometimes we preſſe and wring out things, which we infuſed before the diſtillation; and making our diſtillation afterward of the iuice onely that we preſſed forth: ſometimes againe we diſtill the whole infuſion, that is to ſay, both the infuſed matter and the liquor 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 liquor 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 entire and whole, deſerue a longer time of infuſion than thoſe which are tender, new, or bruiſed: whereupon it commeth to paſſe, that rootes and ſeedes require double time to infuſe: the leaues and flowers a ſingle and leſſer time, and ſo conſequently of ſuch other matter or things. The liquors wherein infuſions are to be prepared, muſt not onely anſwere the qualities of ſuch matter as is to be diſtilled, in ſuch ſort, as that hot matter and things be infuſed in hot liquors, and the cold in cold; but likewiſe the ſcope and drift intended in the thing diſtilled, which is the onely cauſe of the vſing of varietie of liquors in the making of infuſions: and theſe

Two things to be conſidered in infuſion.
The time of infuſion.

are

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, Whey raw or diſtilled, mans bloud, Swines bloud, and Goats bloud diſtilled or vndiſtilled. For this reſpect, things that haue ſmall ſtore of iuice, as Sage, Betonie, Balme, and Wormewood, or which are verie fragrant, as all ſorts of Spices, all ſorts of odoriferous Hearbes, all aromaticall Rindes or Woods, as Cinnamome, would be infuſed in Wine, to the begetting of ſome reaſonable ſtore of iuice in them which haue but a little, and to keepe the aromaticall fragrantneſſe in thoſe which ſmell ſweet, which might otherwiſe euaporate and ſpend, through the heat of the fire, their beſt and moſt precious parts, they being of ſo thinne and ſubtle 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 behind 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 mettallous, as Pearles, Corall, ſhells of egges, 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 be taken inwardly, but onely to be applyed outwardly. In like manner, when it is intended that a water ſhall haue an opening qualitie, and pierce deepe or ſwiftly, the matter thereof may be 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 Goats, for the encreaſe and ſtrengthening of their vertues; as the water vſed to be diſtilled for to breake the ſtone, whether it be in the reines, or in the bladder, may firſt haue receiued an infuſion made in the bloud of Goats. As much, in like ſort, is to be thought of the Whey of Goats milke, wherein things are wont to be infuſed to draw waters off, which are to ſerue in the cleanſing of vlcers of the reines or bladder.

What kind of things are infuſed in wine.

What matter or things are to be infuſed in vinegar, or vrine.

Infuſions in the bloud of Man, a Swine, or male Goat.

Generally, regard muſt be had, that all infuſions be made in ſuch liquor as will ſtrengthen and encreaſe the vertue and force of the things intended to be diſtilled: as alſo, that ſuch matter, before it be ſet to infuſe, be ſhred, ſtamped ſmall, or bruiſed, putting into it ſometime the twelfth part of ſalt, as vnto thoſe that are too moiſt, as fleſh, bloud of men, or other beaſts, as well to keepe them from corrupting, as alſo to helpe forward the ſeparation of the humour that muſt be diſtilled.

Infuſion muſt help or increaſe the force of the things diſtilled.

The addition of ſalt.

Sometimes the things which are to be diſtilled, are ſuffered to putrifie, and then afterward they are diſtilled: yea, and ſometimes the verie putrifaction it ſelfe is the way and whole worke for the diſtilling of ſuch things, as wee will declare hereafter.

Putrifaction.

Fermentation is accompliſhed and performed vpon the matter of infuſion alone, or the whole infuſion together, in the heat of the Sunne in the Dogge-daies, or elſe in ſome Furnace, or Horſe-dung: it requireth manie daies continuance, as foure, 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.

Chap. LXIIII.

Generall precepts about the distilling of Waters.

AFter that the matter is in this manner and fashion prepared (as we haue said) there remaineth nothing more to be done, but the putting of it into the Stillitorie: and herein you must carrie your selfe very wisely and discreetly, in obseruing certaine generall precepts for the ordering and directing of the whole worke vnto a good and perfect end.

Furnaces must be set in a place where they may not doe or take hurt.

First prouide, that your furnaces be set in such a place, as where they may not endanger the setting of your whole house on fire; as that they also may not be subiect to haue any thing to fall vpon them.

When we are to stand farre off from the stiller, and not to come neere them.

If you distill Quicksiluer, or any other such thing which hath a venimous malignitie, come not neere vnto your Stills all the time of the distilling of such matter: for the smoake or fume which at that time 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 employed in melting of Mettals.

The chusing of Glasse-stilles.

If you distill in Glasse vessels, you must make choice of such as are well baked and seasoned, hauing no bubbles or knots, but equall on euerie side, and smooth, thicke, and proued before hand.

The coales must be throughly 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 charcoale burned and made in a pit, or of coale drawne and digged out of the earth, whether they be of stone, or earth, for feare the stilling vessels and water should be 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 heat, as also to the end, that the matter distilled may become acquainted with the fire by little and little, and that so farre, as vntill the fire be come to the third degree, if need doe so require.

What quantitie of matter is best to be put in the still.

You must not put into your Stills or Limbecke too great a quantitie of matter, for so it might runne ouer, and be cast forth 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* bath may not be hoter than the finger may endure 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* bath should not be vehement ynough, then mixe therewith some small sand, to encrease the heat of the water.

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 egges vvell beaten, and applie them vpon the cracke of the glasse hot one after another: in such sort that so soone as one shall be dried like a crust, another be readie by and by to put vpon it, and so to continue.

To distill in the heat of sand.

If you distill your waters in the heat of sand (as many doe and that verie often) or of ashes, or the filings or scales of yron made in powder, the bodie of the still must be armed (whether it be of glasse or brasse, or any other matter) with verie fine ashes that

that haue beene sifted, or with sand, or with the filings of yron finely powdred, in such sort as that the ashes may be higher about the glasse than the matter is within by a halfe foot 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 be below in the bottome of the glasse. The waters so distilled indure much longer than those which are distilled in *Maries* bath: but in all other points they resemble and are like one vnto another.

If you haue not the leasure to make your distillation in a still, and that yet you would gladly distill some certaine juice or liquor: then cause your juice to boyle in some vessell, and ouer this vessell set a glasse: in this glasse the vapour will turne into water: by this meanes vinegar is turned easily into a vvater vvhich is verie profitable for the spots and stayne of the eye, especially if before the distilling of it you cause some few slips of Rhue to be boyled in white vinegar.

To make a speedier distillation than ordinarie.

Vinegar distilled in that sort.

Hot things, that they may proue effectuall, would be distilled three or foure times, putting & 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 means it holdeth still his cooling qualitie in better sort, seeing the force of the fire begetteth heat and sharpenesse in things.

To distill one water many times.

When you would distill one vvater three or foure 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 vvarme, the reason is, because that the matter becomming more and more subtile at euerie distillation, craueth not so great a heat at the end as it did at the beginning when it is in his grossest state and condition. But it is contrarily practised in the extracting of quintessences out of any thing: for then the heat is to be increased and augmented more and more.

The heat required to the distilling of one thing ofst.

The extracting of quintessences

In all manner of distillations of vvaters, you must carefully see to the seperating of the flegme, that is to say, the grossest, thickest, and most waterie part of the humour distilled: and for the doing hereof you must carefully consider of the matter which you distill: because the flegme commeth forth sometime first, sometimes the last in the distillation, as in the distilling of Aqua-vitæ it stayeth the last, notwithstanding that it be distilled diuers times: in the distilling of the most part of other things it commeth forth first, as in vinegar, honie, and such things: and the thing is discerned by tasting of the first and last distilled waters. And if it happen that the flegme be not seuered 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 vvaters in the Sunne certaine daies in vessells 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 Sunne faile, as in Winter time, then you must set your vessell contayning your distilled waters in other vessells full of vvater, and cause them to boyle to the consumption of the third part.

To seperate the flegme in distilled liquors.

The time of the flegme his comming forth.

The distillation is to be judged to be in good state and case, if betwixt the fall of euerie drop, you can account to the number of twelue: and hence also is the judging 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 honie, cinnamome, camphire, muske, or other like sweet smelling thing, (whether it be to giue such smell to the thing that hath none at all, or vnto something that hath a bad and vnpleasant smell, as we will speake of by and by in the water distilled of mans dung) it vvill be good to annoynt and besmeare the head of the still vvith these things, or else to tie vp the same in some little knot of linnen cloth, and hang them at the verie poynt of the spout or pipe, to the end that the vvater distilling through this matter, may retayne that smell or other qualitie intended.

To giue a good smell or taste to distilled waters.

And vvhereas distilled vvaters by force of the fire are euermore seene to retaine some impressions and printes of the heat, it will be good presently after they be distilled,

ſtilled, to let them ſtand ſome time vncouered in the veſſells wherein you meane to keepe them, hauing yet therewithall regard, that neither their ſmall nor any part of their force doe vvaſte or ſpend: and therefore to take the fitteſt 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, vvhich ſhall be diſtilled in *Maries*-bath, will haue no great need to be ſo vncouered, but that they rather muſt be ſet in the Sunne in a glaſſe veſſell not altogether full: or elſe that they with their veſſell be ſet ouer head and eares in hot ſand for the ſpace of fortie daies, to the end that their flegme and thickeſt humour may be conſumed.

Troubled waters. If your diſtilled vvaters become troubled, you ſhall reſtore them to their cleareneſſe by putting thereinto ſome one or two drops of Vinegar for euerie pint of water.

Chap. LXV.

Of the particular manner of diſtilling of Hearbes, Rindes, Flowers, and Rootes.

Diſtilled vvaters are of diuers 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: vvhereinto are put medicinable things. Others are purgatiue, as the water or liquor of rhubarbe if it were new and greene. Others ſerue to grace the face and hands, and to make beautifull. Others for to gratifie the noſe by yeelding a ſweet ſmell, as thoſe which are drawne out of ſpices and ſweet ſmelling ſimples, vſed alſo to vvaſh the hands, face, and whole bodie, 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 vvater in ſuch ſort as that it may expreſſe by ſmell and taſte from whence it came: and for the better doing of it, you muſt ſee that you diſtill it not verie new, but ſomewhat dried, and afterward infuſing it a little in wine to diſtill it in *Maries*-bath, or in hote aſhes: Mugwort, Agrimonie, Sorrell, and ſuch other like plants, are thus diſtilled 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.

Water of common Walnuts. The vttermoſt pilling of common vvalnuts, vvhether it ſhale willingly or no, may be diſtilled in the moneth of September: and the water drawne from them, drunke in ſmall quantitie with a third part of Vinegar, is a certaine remedie againſt the plague, if before drinking of it you cauſe the partie to be let bloud: 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 May is ſingular for to drie and cicatrize vlcers, if they be waſhed euening and morning with a linnen cloth moiſtned therein.

Water of Walnut-tree leaues.

Water of ſtrawberries againſt venime ſpots. To procure termes. To dry the weeping eye. 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 ſoueraigne againſt venime: as alſo to take away ſpots, to prouoke the termes, and drie vp weeping eyes: it will performe all theſe vertues in admirable manner, if there be mingled with it a little Aqua-vitæ.

The water of Aſh-tree. The inward rinde of the aſh-tree being diſtilled, doth yeeld a ſingular water againſt the plague, if it be drunke in equall quantity with aqua-vitę, as three ounces of either,

either, especially if the same drinke in the same quantitie be drunke againe vvithin three houres after: it is good also being dropt into the eares for the noyse in them.

The stones of blacke cherries, being broken, or the kernells alone distilled, make a vvater vvhich doth quite take away the fit of the Falling-sicknesse in young children, presently after that there hath beene put into their mouth about an ounce. *Water of cherrie stones and kernells. The falling sicknesse.*

The distilled vvater of new filberds, drunke the weight of two drams, is a present remedie against the collicke and gripings of the bellie, a thing that will not faile, hauing beene proued and tried. *Water of filberds.*

The vvater vvhich is distilled of the barke of Danewort, or Elder-tree, being oftentimes drunke, doth euacuate and draw the vvater out of such as haue the dropsie. *Water of danewort.*

The vvater of betonie: You must stampe the leaues of betonie and infuse them a certaine time in Wine, and after distill them. The vvater of balme and sage is distilled in like manner. The vvater of betonie is good for the diseases of the head, reines, and bladder. The water of balme rejoyceth men, keepeth away the fits of the Apoplexie, and Falling-sicknesse, it causeth a good memorie, taketh away the paine of the teeth, breaketh the stone, healeth the dropsie, preserueth from venime such as haue swallowed any spider, if it be drunke presently after. *The water of Betonie.*

The water of Gentian: Take foure pound of the new rootes, or rather of the dried rootes of Gentian: chop them small, infuse them in wine, or besprinkle them only, then afterward distill them. This water is singular against the plague, all sorts of venime, the stone as well of the reines as of the bladder, and to heale inward Apostumes and vlcers. *The water of Gentian. The plague.*

The vvater 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. *The water of pellitorie. Paine of the teeth.*

To make water of eye-bright: Take the leaues and flowers of eye-bright, distill them: the water thereof doth cleare the sight. *Water of eye-bright.*

The vvater of Nicotian is distilled as the other going before: but of this vve haue largely discourfed in the second Booke, and haue shewed that it hath maruellous effects, against the *Noli me tangere*, cankers, ringwormes, scabs, shortnesse of breath, and the dropsie. *The water of Nicotian.*

In this sort also you must distill Paules betonie: the vvater whereof is singular to heale wounds, scabbes, and other diseases of the skinne. The vse of this vvater is verie excellent for the leprosie, pestilent feauers, obstructions of the liuer and spleene, and exulceration of the lungs. In this sort also is Mouse-eare distilled, whereof vve haue spoken in his place in the second Booke. *The water of Paules betonie. Leprosie. Scabs.*

The vvater of hyssope must be distilled vpon hote ashes: it is excellent for the paine of the teeth, to prouoke vvomens termes, for the cough, and other diseases of the lungs. *The water of Hyssope.*

The water of turneps: Take whole turneps with their skins and all, or else the skin alone, you shall distill a water (especially of the pilling or skin) which will be profitable to prouoke vrine and sweating. *The water of turneps.*

Water of lymons or the juice of them doth helpe verie profitably in the stone of the reines. *Water of Lymons.*

The water of fennell: Take the rootes and leaues and distill them, or else boyle them in water, afterward put them all hot into a tin or copper platter, and couer the same vvith another platter: the liquor vvhich shall be vpon the vppermost platter shall be kept in a viole, to put a drop or two thereof into the corner of the eye, for the diseases of the eye. *The water of Fenell.*

Water of parsley of the garden: Stampe in a morter the leaues of parsely, then distill them: it cleanseth the stomacke, and comforteth the reines. *The water of parsley.*

After

Water of smallage, basile, mints, buglosse, &c.

After the same manner are distilled the waters of smallage, basill, buglosse, mints, cammomile, marigolds, Carduus benedictus, clarie, succorie, capillus Veneris, cheruile, endiue, aller, fumitorie, broome, Iuie, horse-taile, lauander, marierom, melilot, mallowes, holihocke, vvater lillies, nigella, organie, pionie, poppie, pellitorie of the wall, burnet, plantaine, purcelaine, penniryall, rue, rosemarie, madder, sage, sauorie, scabious, scolopendrium, nightshade, houseleeke, willow leaues, groundswell, thyme, white mulleine, tansey, valerian, veruaine, of the flowers and leaues of the stinging nettle, as well as of the dead nettle, and of many other plants, obseruing the generall precepts, which we haue set downe before.

The water of cinnamome.

This is the manner of distilling cinnamome: Take a pound of fine cinnamome, breake it lightly, and infuse it a certaine time in the distilled water of Roses the quantitie of foure 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, sinews, faintings and swounings, to prouoke the termes of women, and retayned vrine, to stay vomits, to represse the malignitie of all sorts of cold venime, and for the deliuerie of women that are in trauell of child.

A bad stomacke wearied sinews or lassitude. Venime.

Rosewater.

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 defluction tending downeward, vvhich is called in Latine *Distillatio 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 drie, it is good to moisten them vvith the vapour of some boyling 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 juice drawne from them, and that by the space of two or three dayes, your vessell 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 conjoyned in your vessell of Maries-bath.

Water of orange flowers.

Water of Orange-flowers, called water of Nasse, being distilled by a bell, is good to procure vomit, as also to make a good smell.

Water of wild apples.

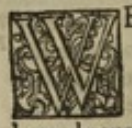
The water of vvild Apples, and of Oke Apples vnripe, of chesnuts, and of verijuice that is halfe ripe, is good against the red pimples, and hard knobbes in the face.

The water of elder, rosemary, and marigolds.

The vvaters of flowers (as of Rosemarie, vvhich is good to rejoyce the heart: of Elder-Tree, vvhich keepeth the face cleare from Sunne-burning: of Marigolds, vvhich comforteth the eyes: and such others) are distilled after the manner of Rose-water.

Chap. LXVI.

Of the manner of distilling liquors.



What is meant by liquor in this place.

We haue heretofore 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 vvhich hath any good propertie and speciall qualitie 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, vvhether it be juice, humour, excrement, or any such like floting thing, as vvine, vinegar, honie, vrine, juice of hearbes or fruits:

and

and you cannot but thinke that the juice of hearbes or fruits being distilled doth afford a farre better water, than that which is distilled of hearbes, yea or of fruits either. We will begin therefore with distilled vvine.

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 vvine is the best, vvhether pallet and inclining to vvhite, or high coloured and inclining to red:) Take then of claret vvine a certayne quantitie, according to the bignesse 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 streight 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 wisdome (being the same which we haue before described) to the end that no vapour may passe out thereby: and thus cause it to distill with the heat of hot, but not boyling water: or else at a reasonable heate in ashes, or in small sand, increasing the fire continually by little and little, and yet taking heed that the wine doe not boyle: 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 alreadie. For the first distillation, it shall be ynough to draw the tenth part, that is to say, of ten pintes of vvine one pint 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, vvhich should be a quarter of a pinte: in such sort as that the ofter it is distilled you must haue lesse in quantitie, 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: and herewith likewise it is to be wished, that euerie man would be contented without going ouer it any more: because so many 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 degree called bleud vvarme. And truely 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-vitę is sufficiently distilled by these signes; If there come backe the like quantitie of water; if being set on fire, it consume and vvaste all away, not leauing any signe of moisture behind it in the bottome of the vessell: if a linnen cloth that hath beene dipt in the Aqua-vitę being set on fire doe not burne any iote at all; if a drop of oyle being put into it, go to the bottome; if a drop of Aqua-vitæ being powred in the ball of your hand, doe waste away and vanish verie speedily; if yellow amber being set on fire doe burne in the Aqua-vitę; 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 verie good Wine, being neither sower, nor spent, nor otherwise tainted; and such Aqua-vitæ sometime is not inferiour but superiour in goodnesse vnto that which was distilled of the Wine itselfe: Againe, if it be often distilled ouer, it becommeth more hot and drie, then that which is made of the verie Wine: but yet indeed that which is made of Wine is more pleasant vnto the taste, and of a more delightsome smell: Aqua-vitę is also sometimes distilled of beere, but that is not so good as the other of Wine. The vessells 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-vitę 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 straighe nose comming out of it, and rising vp on high, and turned downeward againe with a direct angle, and so passing through a bucket

Aqua-vitæ.

The bladder fitt to distill Aqua vitæ in.

Aqua vitę often distilled.

Signes shewing that the Aqua-vitæ is sufficiently distilled.

Aqua-vitę is distilled either of wine or wine lees or beere.

Vessells for the distilling of Aqua-vitæ.

bucket full of cold water. After that the Aqua-vitæ is distilled, you must set it out into the Sunne a certaine time to make it yet more and more subtle. After this sort you may distill all iuices and liquors, as mans bloud, vrine, vineger, the deaw, milke, whites and yolkes of egges, mans dung, or beasts dung. The vertues of Aqua-vitæ are infinite: It keepeth off the fits of the Apoplexie and Falling sicknesse, 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 driueth away venime: keepeth 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 wormes, and assuageth the paine of the teeth, &c. See more in our Booke of secret remedies.

Vertues of Aqua-vitæ.

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 Vineger: for seeing that Wine is of a vaporous and fierie substance, the chiefest and principallest parts in it doe runne at the first distillation, that is to say, with the water that first commeth forth: insomuch, as that that which remaineth and stayeth behind in the vessell, tasteth no better than common water, hauing in it no force or vertue. On the contrarie, the first that distilleth of Vineger tasteth nothing at all, saue onely that it sheweth it selfe somewhat more in his earthie parts by the alteration of his qualitie (for Vineger is no other thing but a corrupted Wine, made eager by putrifaction:) for indeed his true, naturall, and proper qualitie of eagernesse and sowrenesse, as also the force and strength thereof, stayeth behind 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 rellish 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 encrease the heat 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 Honey 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 mettallous things, as Pearles, Corall, Egge-shells, 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 oyle, 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 water, or Sea water.

Salted water or sea water is made sweet by this meanes. Fill a pot of salt water, let it boyle 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 mettalls are mixt with minerall vvaters.

Honey distilled.

The manner of distilling of honie is such. When the honie is once well purified, put it in small quantitie into a stillitorie (for in a great quantitie it vvould swell ouer, after that it should once feele the heat) distill it in Maries-bath with a gentle and warme heat: the water that commeth first forth, is the flegme, which must be kept by it selfe for to colour and make long the beard and haire. Afterward increasing the heat a little, there will come forth a water of a yellow, and as it were a golden colour, which

To colour the haire.

which you may keepe in another vessell, seeing it is good to cleanse vvounds both shallow and deepe ones: your distillation continuing, there will come another vvater high coloured and more red than the former, and then if you doe vvell, you shall change the heat of the vvater into the heat of the ashes or sand, that is to say, that you should remoue your Still, and set in ashes or sand euen almost vp to the verie mouth, and that there be not aboue three inches in bredth betwixt the fire and your Still, continuing to increase your fire, and to make it bigger than it was before, and by this meanes there will come forth a water more clammie than the former, and may be called the oyle of honie. After this manner you may distill turpentine, and such other thicke and clammie liquors. Indeed to distill such thicke liquors, vvere better to be done by a retort, rather than in Maries-bath, as we will manifest when we come to speake of the distillation of oyles. *Turpentine distilled.*

For to distill the bloud of a male Goat: Take the bloud of a young male goat being vvell fed, but not that bloud vvhich shall come forth first, nor that which shall be last, but that which shall come forth in the middest: let it stand and settle for some time, and then cast out the vvater that shall swim aboue: after vvith a tenth or twelfth part of salt, stir it vvell 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 behind. After you haue thus distilled it foure or fiue times, you shall haue a maruailous 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 bloud of a male Goat distilled.*

The bloud of a young man is distilled in the same sort, but the man must be of a good complexion, and sound bodie, of the age of twentie yeares or thereabouts, of a vvell fed and fleshie bodie: and it seruetb in steed of restoratiues vnto those vvhich are in a consumption: it is good likewise against rheumes and distillations falling vpon the joynts, if the diseased places be fomented therewithall. Howbeit I do not greatly approue the distilling of mans bloud for any such end, seeing it is an vnworthie 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 stone. Mans bloud distilled.*

The bloud of a Drake is in like maner distilled against poyson: and after the same sort may the bloud of a Calfe, Badger, or Hare be distilled. *The bloud of a Drake distilled.*

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 milk therefore must be good and fat, such as is the milke of a heyfer. Some physitians hold that distilled milke is good against the jaundise, as also against a quartaine ague, if it be distilled with the like quantitie of Wine. *Distilled milke. The vertues of distilled milke.*

The milke of the she goats 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 milke of a she Goat distilled.*

Mans dung is distilled in a glasse stillitorie in such manner as Aqua-vitę is distilled: the vvater 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 eyes. Taken also in manner of a drinke, it deliuereth from the Falling-sicknesse: and in like sort if the head be rubbed therewithall, it deliuereth also from the stone of the reines and bladder, and from the dropsie, and doth them verie much good that are bitten of a mad dogge, or of other venimous beasts. Notwithstanding whereas such water simplie 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 contayning muske in it; or else to annoint the head vvithin vvith the said muske or some other such like thing that is of a good sauour. *The distilling of mans dung. Deepe vlcers. The biting of a mad dogge. To giue a good smell to the distilled water.*

And thus may the dung of kine or pigeons be distilled; the distilled water whereof is good to breake the stone.

Chap. LXVII.

Of the manner of distilling of liuing creatures, or their parts.

To distill liuing things.

TO distill the bodie of any beast, you must first strangle it, that so it may not shed any bloud, and after take away all his fat (if he haue any) and the entrailes: then chop the flesh small, and cast vpon it the tenth or twelfth part of salt, and so distill it in Maries-bath, or vpon hot ashes after the manner of Roses. Thus the young and tender storke which did neuer flye 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, vvithout any such long and teadious preparation they may be distilled by and by after the manner of other vvaters, as vve vvill forthwith declare in the distillation of restoratiues.

The water of a storke.

Water of Swallowes.

The vvater of Swallowes: Take Swallowes the weight of sixe ounces, and castoreum an ounce, let them infuse a whole night in vvater, and put into a Limbecke, be distilled: This vvater is singular to preserue one from the Falling-sicknesse, if it be taken but once a moneth to the quantitie of two spoonefulls, and that in a morning fasting.

The Water of flesh.

The flesh of beasts is distilled on this manner: Cut and chop the flesh small, incorporate and stampe it vvith a tenth part of common salt: after put it in a vessell (like vnto a gourd) vvell 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 vvhich time you shall vvater the said vnquencht lime and dung often with vvarme vvater to stirre vp their heat, and you shall renew the lime and dung three or foure times euerie weeke: for you must thinke that for vvant of heat, the flesh might putrifie in steed of digesting. And after they haue beene sufficiently digested (vvhich you may know by seeing the grosser parts seperated from the more thinne and subtile) the vessell shall be taken out of the dunghill, and the head of a Still set thereupon, the nose or snout being vvell luted, and so it shall be distilled in Maries-bath diuers times ouer, powring the distilled vvater againe vpon the residence or drosse remayning 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 vvere of a quintessence.

Water of Egges.

As well the vvhites as the yolkes of egges are distilled after the manner aboue-sayd: but they must not be digested in the dung aboue fiue or sixe dayes at the most.

The vvaters thus distilled are more than restoratiues, hauing the vertue to encrease the substance of the bodie and members, as naturall flesh and nourishment doth.

Chap. LXVIII.

Of the manner of distilling of 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 possibly may be: or else take musculous flesh, which is called the vvhites of capons, pullets, fat and well fleshed hens, after they haue beene well hunted and tired, cut likewise and chopped small: put vnto this flesh, calues feet, peeces of gold, or rather the thin beaten leaues of gold: put all in a glasse Still well luted with mortar made of flower, whites of egges, and a little masticke: into this Still, you shall cast (for the giuing of some grace vnto the distillation, and somewhat to mitigate the heat which 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 juice of pomegranates or rose-water, and a little cinnamome: place them all in the Still, as it were after the manner of little beds, and strew 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 hearbes respecting the head, in the diseases of the head, as betonie, penniryall, 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-sicknesse, the seed of pionie, and misletoe of the oake: for the quartaine ague, polopody, scolopendrum, and the rootes of Tamariske: for the French disease, the rootes of gentian, enula campana, and the wood guajacum, and so of other things: yet it seemeth vnto me that it were better that the cordial powders should not be mingled among the rest, for feare that their force, which is thin, 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 verie 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 shall be distilled in a stillitorie of glasse well luted (as we haue said) and in Maries-bath; or else in ashes, grauel, or hot sand: for by this meanes the distillation vvill taste least of the fire. It will be good before the flesh be put into the still to be distilled, that they should haue boyled a boyle 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 thin grosse peeces: because that grosse peeces in respect of their solidenesse consume but a verie little, and with much adoe. This is called a diuine restoratiue, and must be giuen vnto the sicke partie prettie and warme. *Restoratiues.* *The diuine restoratiue.*

Another manner of restoratiue after the Italians fashion: Take a Capon, or a good Henne, which yet neuer laid egges, let her or him be pulled aliue, that so the bloud may be stirred and dispersed throughout the bodie: after you haue pulled them, take out the guts, and afterward stampe bones and all together in a Mortar, putting thereto as much crummes of new bread as there is stamped flesh, pound all together with a handfull 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 restoratiue.*

Another manner of restoratiue: Boile a Capon, or some such other flying fowle, whole and entire, with Borage, Bugloſſe, Scariole, Endiue, Lettuces, or other such like hearbes, as shall be necessarie in respect of the disease: and when it hath boiled till it seeme as rotten with boiling, take the broth or supping, and put it into the stillitorie, *Another restoratiue.*

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 things: and finally, diſtill them after the manner aboue ſpecified.

Another reſtoratiue. Some there are vvhich vvill not make any reſtoratiues but of capons-fleſh, the oldeſt they can get, ſuch they ſtrangle and plucke by feather and feather, not vſing the helpe of any hot vvater, then they take out the entrailes and chop them ſmall: adding thereto flowers or conſerues of bugloſſe, burrage, damaske raiſins, 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 child-bed, and old folke.

A reſtoratiue to be made preſently. To make a reſtoratiue in ſhorter time, and that vpon the ſudden, with leſſe coſt, charges, as alſo paine and labour: chop your fleſh ſmall after the manner alreadie deliuered, put it into a glaſſe viole or bottle of a ſufficient bigneſſe, 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 vvhereupon they hang be vvithout the bottle, which muſt be well ſtopt aboue with a linnen or cotten cloth, wet in a mixture made vvith whites of egges and barley flower: ſet this bottle in a caldron full of water, boyling at a ſmall fire, and there let it ſtand foure houres more or leſſe, vntill ſuch time as a good part of the fleſh bee conuerted into moiſture: See that the bottle ſtand in the vvater vp to the necke, and that it touch not the bottome of the caldron, and vvithall vvell ſtayed vpon euerie ſide, that ſo it may not ſlip or bend more one vvay than another. When the foure houres are ſpent, rebate the fire gently, that ſo the bottle alſo may coole by little and little, vvhich if ſo bee that you ſhould take all hote out of the water, it vvould breake preſently. Afterward, vnſtop the bottle vvith vvarme vvater, if you cannot vvell otherwiſe, and then draw forth the ſtring and the fleſh ſoftly, that ſo the liquor may remaine alone: ſtraine the vvater after the manner of Hypocras, and aromatize it vvith Sugar and Cinnamome, that ſo it may be giuen to the ſicke that are vvaſted. You may after this manner make reſtoratiues ſuch like as you ſhall thinke good, either cheaper or dearer, more or leſſe pleaſant and delicate, and more or leſſe medicinable, as occaſion may require.

Chap. LXIX.

The manner of diſtilling compound waters.

Compound waters. Waters are not onely diſtilled of one onely or ſimple plant, liquor, or other matter: but alſo of many mixt together; and ſuch vvaters are called compounded vvaters, by reaſon of the mixture of many things.

Three ſorts of common compound waters. Theſe compound vvaters are of three ſorts: ſome are for phyſick, other ſome for ſweetneſſe, and the other for ſukes and painting, as ornaments to the bodie: vve vvill firſt and before the reſt ſpeake of thoſe which ſerue for medicine and phyſicke.

Sage water compounded. Sage water compounded: Take equall parts of ſage and penniryall, ſtampe them in a mortar, and diſtill them. This water taketh away the paine of the bellie, and ſtayeth cold rheumes if it be drunke with a little quantitie of caſtoreum.

Turnep water compounded. Water of turneps compounded. Take turneps either garden or wild ones, or both together, the roots of ſmallage and parſley, and aniſe-ſeed, infuſe them all in white wine or vinegar, and diſtill the vvater 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, & there will

will distill from them a singular water against the Falling-sicknesse, if it be taken in the quantitie of two or three spoonefulls. *Falling sicknes.*

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 juice, vvhich you shall mix together: put vnto them some buds of roses, of sugar-candie three ounces, of verie good Tutia foure ounces, and as much of dragons bloud: distill them all in a stillitorie: This vvater taketh away the rednesse and spots in the eyes. *Water of celandine compound.*

Water of the Vine: Take the vvater that distilleth from the vine-stockes at such time as they are cut, vvhich is in the Spring-time, distill it with like quantitie of honie: this vvater healeth itchings, heat, and rednesse of the eyes: the verie vvater of 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 verie well together, afterward distill them, and let the distilling vvater fall into a vessell wherein is a handfull of the foresaid hearbes, this vvater preserueth the sight, if the eyes be vvashed therewith in Sommer. *Rose water compounded.* *It preserueth the sight.*

Water of Eye-bright: Take Celandine, Fennell, Rue, Eye-bright, 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 vvater is singular good for a vveake sight. *Eybright water compounded.*

Water of Rosemarie: Take Aqua-vitæ distilled of white Wine, the distilled vvater of rosemarie and sage, of each fiue pound, of sugar two pound: in these infuse of the flowers of sage and rosemarie for the space of eight daies, of each two ounces, straine them, and keepe the water to heale the fistulaes of the eyes. *Rosemarie water compounded.* *Fistulaes of the eies.*

Water of Treacle: Distill in a glasse stillitorie Treacle, with a like quantitie of Aqua-vitæ and Vinegar: This vvater is good to touch the vlcers and rawnesse of the mouth vvithall, especially if there be added vnto it a little bole-armoniacke. *Water of treacle.* *Vlcers of the mouth.*

Another Treacle water: Take old 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 each an ounce, infuse them all together in three pints of white Wine, a pint and a halfe of Cesterne water, and two pints of Rose-water: distill them. *Treacle water.*

Water of Cloues: Take equall parts of Cloues, Ginger, and flowers of Rosemarie, infuse them in verie good Wine the space of eight daies: distill the whole: This vvater comforteth the stomacke, assuageth the paines and vvringings of the bellie, killeth vvormes, 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 juice of Saxifrage two pound, of the juice of Pearlewort, Parsley, Anise, and Clotburre, of each halfe a pound, of vvhite Vinegar eight ounces, distill them all: This vvater drunke in the morning, breaketh the stone. *Saxifrage water.* *The Stone.*

Water of Swallowes: Take Swallowes and drie them in an ouen, make them into powder: mixe it vvith a little Castoreum, and a little Vinegar, distill it all: this water cureth the Falling-sicknesse if it be drunke foure mornings. *Water of Swallowes.*

Water of horse-taile: Take horse-taile, plantaine, red roses, Winter-cherrie-berries, rootes of holihockes, and scraped licorice, of each an ounce, of bole-armoniacke halfe an ounce, of the seed of gourds and cucumbers, of each three drams, of the seede of white poppie, six drams, of the seed of quinces halfe an ounce: Infuse them all in vvhay made of goats milke the space of two daies, afterward distill the vvater: which will serue for the vlcers of the reines and bladder, if there be foure ounces of it taken vvarme in the morning. *Horse-taile water.* *Vlcers of the reines.*

Water of corneflag: Take equall parts of corneflag, hyssope, and southernewood, stampe them throughly, and leaue them so a certaine time, afterward distill them: this vvater prouoketh womens termes, and killeth wormes in young children. *Corneflag water.*

Burnet-water: Take the seed of burnet, parsley, smallage, the leaues and rootes of clot- *Burnet-water.*

clotburre and ſmallage, of euerie one equally : ſtampe all together, after put thereto of draggons bloud an ounce, and a little good vinegar : ſet all to infuſe together a certaine time, afterward diſtill it : this vvater hath a meruailous vertue againſt the ſtone and grauell.

Stone. Grauell. A ſingular vvater for the grauell, vvhich the deceaſed *Monſieur de Tillet* had great vſe of vvith happie ſucceſſe : Take the rootes of parſley and fennell made verie cleane, and the vvooddie part taken out, of each foure handfulls, boyle them in twelue pintes of riuer water : vvhen they are halfe boyled, put thereto of the tender buds of Mallows, holihockes, violets, and ſea-weed, of each foure handfulls, boyle 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 eyes. A ſingular water for the eyes : Take celandine, veruaine, betonie, eye-bright, rue, and fennell all new and freſh, of each two handfulls, ſtampe them together, ſprinkling them with halfe a pound of white Wine, preſſe out the juice, and afterward infuſe in the ſame pepper and ginger made in powder, of each halfe an ounce, of ſaffron three drams ; of myrrhe, aloes, and ſarcocol, of each one ounce ; of verie good honie a pound : diſtill them all in a glaſſe ſtillitorie at a ſmall fire, and keepe the water for the ſpots of the eyes.

An imperiall water. Take foure ounces of the pills of Oranges dried in the ſhadow of the Sunne ſixe dayes : nutmegs, and cloues, made into powder either of them by themſelues, of each foure ounces, infuſe the ſaid aromaticall powders in a glaſſe viole with roſewater the ſpace of ſeuenteene dayes in the Sunne : after caſt vpon the ſaid powders, the rindes of oranges, vvhich 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 roſemarie, hyſſop, balme, roſes of the buſh, of each two handfulls, of bay-leaues a handfull, lay them all to drie in the Sunne 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 oranges, 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 roſe-water or thereabout, ſo that it may be in proportion equall to the third or fourth part of the water drawne out by diſtillation. This vvater taken in the morning the weight of a dramme, keepeth the bodie ſound, luſtie, and reneweth youth. It is ſingular for the paine of the head, teeth, bellie, gripings, palſie, conuulſions, apoplexie, faintings, and other ſuch cold diſeaſes. This is the vvater that is ſo much eſteemed in the courts of kings and princes, and amongſt the great and renowned ladies.

An Allome water. An Allome-water : Take Verjuice, the juice of Plantaine and Purſlaine, of each a pound, ſeuen whites of egges, ten ounces of Roch-allome, mingle them together, and diſtill them. Otherwiſe, take plantaine, purſlaine, ſorrell, gourds, night-ſhade, and verjuice, of each a handfull, poune them groſly, mixe therewith ten or twelue whites of egges, put them all in a glaſſe ſtillitorie to diſtill, mingling amongſt them halfe a pound of Allome, as you lay bed vpon bed : this water is good for cankers, for the redneſſe of the face, and for vlcers, applying linnen clothes 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-vitę, wine, milke, whay, diſtilled waters, or conuenient decoctions, and ſuch waters vvill haue the like vertues as the purging medicines haue ; thus you may diſtill Catholicum, Diaphœnicon, confectio Hamech, and Electuarium de ſucco roſarum : Thus you may diſtill rhubarbe, agaricke, hellebor, ſcammonie, and ſuch other purgatiues that are ſound and new.

Catholicum and Diaphœnicon diſtilled.

Water of Rhubarbe diſtilled. The maner of diſtilling rhubarbe may be this : take a quantitie of new and greene Rhubarbe, vvhether it be a pound, or halfe a pound, more or leſſe, make it into ſmall

peeces,

pieces, or make it into grosse powder, and vpon it cast of the iuice of Borage and Buglosse, of each two pound, for one of Rubarbe, infuse them all together for the space of foure and twentie houres vpon hot ashes, then distill them in a Stillitorie in *Maries* bath.

This distilling of purgatiue Medicines, is for such kind of people as are verie delicate, and cannot abide the smell of the purging medicine to be ministred otherwise vnto them.

Chap. LXX.

Of sweet Waters particularly described.

SWeet Waters serue to wash the hands, face, haire of the head, and beard: as also to make Linnens, Garments, Gloues, and such other things, to smell sweet. *Sweet 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 Sunne in a Glasse-violl close stopped, and 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 Oyle of Spike into a good sufficient quantitie 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. *Lauander water.*

Water of Cloues: Take halfe an ounce of Cloues well bruised, set them to infuse in a pound and a halfe of Rose-water the space of foure and twentie houres, after distill them in *Maries* bath. *Water of Cloues.*

The water of sweet Smells: Take Basill, Mints, Marierome, rootes of Corne-flag, Hyssope, Sauorie, Sage, Balme, Lauander, and Rosemarie, of each a handfull: of Cloues, Cinnamome, and Nutmegs, of each halfe an ounce: then take three or foure Citrons, and cut them in sufficient thicke slices: which done, infuse all this in a sufficient quantitie of Rose-water for the space of three daies, distilling it all afterward in *Maries* bath at a small fire: the distillation done, put thereto a scruple of Muske. *The water of sweet smells.*

Water of Roses musked: Take the buds of Roses, and cutting out the white, put them into the Stillitorie, and in the middest thereof, vpon your Roses, put a little knot of Muske, and so distill them. *Rose-water musked.*

Water of Spike: Take Spike before the flower be altogether blowne, and taking away all the wood from it, lay it on a bed within the Stillitorie: afterward, lay vpon that bed a bed of Roses almost blowne, and thereupon some dozen of Cloues: but and if you haue not Spike, then you may put Lauander in his place: distill it at a moderate fire, and with as little ayre 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. *Water of Spike.*

Damaske water: Take two handfuls and a halfe of red Roses, Rosemarie flowers, Lauander and Spike flowers, of each a Pugill: of the sprigges of Thyme, flowers of Cammomile, flowers of small Sage, of Penyryall, and Marierome, of each a handfull: infuse them all in white Wine the space of foure and twentie houres: then put them into the Stillitorie, 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 drammes, make them *Damask water.*

them in powder: The water that shall be distilled, must be kept in a vessell verie well stopped.

Water of Myrrhe. There is also made a verie sweet water of cleare 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 quantitie as the Myrrhe: It must be distilled vpon hot ashes at a small fire; for and if you should encrease it, there would come forth oyle with the water. Such water being dropped but onely one drop of it into an hundred of well or fountaine water, maketh it all to smell most sweetly.

Rose-water sweetned with Muske. Rose-water sweetened 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 stop it close with good Parchment, setting it in the Sunne for foure or fiue daies: then take another vessell of the fashion of the first, which you shall fill with Roses dried a verie little, and stamped: then stop that vessell also with a verie thinne 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 will be good either to be vsed alone, or mingled with some other. Otherwise: Take twentie graines of Muske, Nutmegs, Cloues, Galingall, Schænanthum, graines of Paradise, Mace, and Cinnamome, of each an ounce, bray them all together, and put them into a Stillitorie with a pound and a halfe of Rose-water, then let them stand so foure or fiue daies, and afterward distill them.

Water of Oranges. Water of Oranges: Take the pilles of Oranges 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, six ounces, infuse all together in six pound of Rose-water the space of foure or fiue daies, afterward distill them.

Water of Nasse, or Orange flowers. Water of Orange flowers: Take flowers of Oranges, and distill them in a Glasse-Stillitorie, or in an earthen one verie well baked and glased, hauing but a small fire: you may also put vnto them the flowers of Citrons, if you thinke good. 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 Orange 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: afterward 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 bruised Cloues, and in the middest of all make a little pit, in which you shall put certaine graines of Muske, or Ciuet, or Ambergreece, 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 stopped.

A sweet smelling water. A sweet smelling water: Take Marierome, Thyme, Lauander, Rosemarie, small Penyryall, red Roses, flowers of Violets, Gilloflowers, Sauorie, and pilles of Oranges, steepe them all in white Wine, so much as will swimme aboue the said hearbes: afterward distill them in a Stillitorie twice or thrice: keepe the water in bottles well stopped, and the drosse or residence to make perfumes.

CHAP.

Chap. LXXI.

The fashion of distilling water for Fukes.

NOw, albeit that a good Farmers wife must not be too busie with Fukes and such things as are for the decking and painting of the bodie, because her care must wholly be imployed in the keeping and encrease of her household-stuffe; notwithstanding, I would not haue her ignorant of the manner of distilling of waters for Fukes: not that shee should make vse of them for her selfe, but that shee may make some profit and benefit by the sale thereof vnto great Lords and Ladies, and other persons, that may attend to be curious, and paint vp themselues. Now all such waters in generall serue for three purposes: The one is to smooth and keepe neat the skinne, as well of the face as of the other parts of the bodie: 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 egges, of the flowers of Lillies, of Dragons, and of Calues feet: others are compounded of manie ingredients, as you shall know by the briefe collection that wee shall make of them. *A water for Fukes.* *The vses of waters for Fukes.*

Water of Strawberries: Take ripe Strawberries, set them to putrifie some certaine time in an earthen vessell, putting thereto a little salt or sugar, and afterward distill them: This water will cleanse away the spots of the face and 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 doe distill them. *Water of Strawberries.*

Water of Beane-flowers: Take the flowers of Beanes, infuse them a day or two in white Wine in a Glasse-violl in the Sunne, afterward distill them: This water taketh away the spots of the face, if it be washed therewith morning and euening. *Water of Beane-flower.*

The rootes of great Dragons distilled, maketh a singular water to take away the prints and marks which the pocks haue left behind them: so doth likewise the distilled water of the root of wild Vine, of Corneflag, Sowbread, Costmarie, Angelica, Elicampane, Turneps, wild Cucumbers, white Onions, Gentian, Capers, Lillies, Madder, Alkanet, Cinquefoile, Crowfoot, Tasell, and manie other hearbes. *The water of Dragons.*

Water of Guaiacum: Take Guaiacum, and cut it in small pieces, infuse them a certaine time in the decoction of other Guaiacum, and a third part of white Wine, afterward distill them in a Glasse-Stillitorie: The water that shall distill thereof is singular for the taking away of all spots out of the face, especially if you ioyne 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 egges and iuice of Limons, scoureth the face, and maketh it faire. In stead of this water, if you haue not the fit meanes to distill it, you shall take seuen or eight Limons, or Citrons, which you shall cut into quarters, and after infuse them in white Wine in the Sunne. *Water of whites of egges.*

Another water: Take six ounces of the crummes of white bread, infuse them in two pound of Goats or Asses milke, mingle them diligently together, and afterward distill them. *Water of crumes of bread.*

Water of Snailes: Take white Snailes about thirtie, of Goats milke two pound, of the fat of a Pigge or Kid three ounces, of the powder of Camphire a dramme, distill them in a Glasse-Stillitorie. *Water of Snailes.*

Water of the whites of egges: Take the whites of new egges, about twelue, fine Cinnamome an ounce, and Asses milke twelue ounces, distill all in a Glasse-Stillitorie: This water maketh a woman looke gay and fresh, as if shee were but fifteene yeares old. *Water of the whites of egges.*

Water

Water of Calues feet.

Water of Calues feet: Take the feet of a Calfe, and (taking away their skinne and hooues of their hoofes) cut the reſt in pieces, 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 Pocks.

A water making white.

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 another, beat 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 ſweet Almonds, Snailes of the Vine, and white Mulleine, and put thereunto likewiſe the like weight of white Honey: diſtill all together in a Stillitorie.

Water of crumes of bread.

Water of bread crummes compounded: Take the crummie part of Barly bread, indifferent betwixt white and blacke, two pounds, of Goats milke three pounds, of white Wine halfe a pound, of the foure great cold ſeeds of each two ounces, of the flowers of Beanes, or dried Beanes and Cich Peaſe, of each two pound, of Rice halfe a pound, of the flowers of water Lillies and white Roſes of each two pugills, the whites and yolkes of twentie egges: 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, Henne, 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 pugills, the whites of two or three egges, the weight of two French crownes of Camphire, diſtill them all: This water is of a maruellous vertue to take away the ſpots and ſtaines of the face, and other parts of the bodie.

Water of Bran.

The water of Branne: Take Branne the beſt that you can find, ſift it diligently, and afterward temper it with ſtrong vineger, put them into a Still, and caſt vpon them tenne or twelue yolkes of egges: diſtill them all: This water maketh the face cleane, gliſtening, and verie faire.

A ſweet water.

Another water: Take the flower of Beanes and water Lillies of each a pound, of bread crummes, Rice flower, flowers of Corneflags, of each ſix ounces, of Honey a pound, of white Wine and water of the fountaine of each three pound, let all be well mingled together, and afterward diſtill them in *Maries* bath.

Another water.

Take the rootes of Corneflag and wild Cucumbers of each three pound, of the rootes of Holihockes and Lillies of each two pound, of ripe Grapes halfe a pound, of Beane flowers and leaues of wall Pellitorie of each a pugill, of water Lillies and Mallowes of each a handfull, of the crummes 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 foure great cold ſeedes another 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, ſcarres, the prints of the ſmall pockes, and all other ſpots of the skinne.

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 pint of Goats milke, foure ounces of freſh Butter, foure pugills of Plantaine, and as much of the roots and leaues of *Salomons* ſeale, one ounce of Camphire, halfe an ounce of Sugar candie, and two drammes of Allome, let all ſettle together, and afterward diſtill it.

Another water: Take of the crummes 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 Goats milke ſix ounces, and of the flowers of Cornflag an ounce, diſtill all: this water is good to keepe the hands cleane and white.

Water of Cowes milke.

Take Cowes milke in the moneth of May (in other moneths it is not worth anie thing) two pounds, foure Oranges, and fiue Citrons, Roch Allome and fine Sugar of each an ounce, cut the Oranges and Citrons into ſmall quarters, and infuſe them in milke, afterward diſtill them all: this water is good to keepe the colour neat & freſh.

Take

Take a certaine number of egges, the newest you can get, and lay them to steepe in verie strong Vineger three whole dayes and nights: afterward pierce them with a pinne, in such sort, as that you may cause all the water that is within them to come forth: and then distilling this water, you shall find it excellent to beautifie the face. *Water of egges.*

Likewise to wash the face with the water of Almonds, or Sheepes or Goats milke, or else to lay vpon the face, when one goeth to sleepe, a white Linnen cloth dipped in these liquors, is auaileable for the beautifying of the face. *A water to colour or paint the face withall*

Another water: Take two Calues feet, boyle them in Riuer water to the consumption of the one halfe of the water, put thereunto a pound of Rice, of the crummie part of one white loafe, kneaded with Goats milke, two pound of fresh Butter, the whites of tenne new layd egges, with their shells and skinnes, distill it all, and in the distilled water put a little Camphire and Roch Allome: this water maketh the face verie faire.

Water of Lard: Take such quantitie of Lard as you shall thinke good, and 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-Sillitorie: 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 Honey distilled, as wee haue said before, maketh the haire beautifull and long. *Water of Honey.*

Water of Capers: Take greene Capers, and distill them: This water dyeth haire greene, if after they haue beene washed with this water, they be dried in the Sunne. *Water of Capers.*

Another water: Take a pound of verie good Honey, and of the leaues of male Sothernewood two handfuls, mingle them, and 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 cleanse the teeth: Take Sage, Organie, wild Marierome, Rosemarie, and Pennyryall, of each a handfull, of Pellitorie, Ginger, Cloues, and Nutmegs, of each the weight of two French crownes, put all together, and water them with white Wine, afterward distill them. *A water to cleanse 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 Honey thereunto, and so distill them.

Chap. LXXII.

The manner of distilling per ascensum *and* per descensum.

All manner of distillation which is made by vertue and force of fire, and such like heat, 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 humors descending downeward, and this is commonly called *per descensum*. Waters are for the most part distilled by the way called *per ascensum*; as Oyles 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 Oyles *per ascensum*, such as are the Oyles drawne of leaues, flowers, fruits, seeds, and other such like matter. *To distill (as it is called) per ascensum.*

The waters that are distilled *per descensum*, are chiefely sweet waters, such as are made of flowers and leaues of a good smell, which being so distilled, doe 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. *What manner of Oyles are distilled per descensum.*

The

Rose-water distilled per descensum.

The way is this: Take new Roses, or other such flowers, and put them in a Linnen cloth, spread 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-panne, hauing the bottome couered with hot coales; but therewithall you must looke, that you let not the fire remaine anie long time vpon the vessell, for feare it should grow too hot, and that the water should smell of burning. This way is better than anie other, to make a great deale of water in a short time, and without great charges, of flowers and all sweet 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 manie small holes in the bottome, let the bottome of this vessell goe into the mouth of another vessell made of earth, and lute them both together verie well, and let the earthen vessell be set in the earth vp vnto the throat, and then lay it round about with coales of fire, thus giue fire vnto the vpper vessell for the space of tenne or twelue houres: it will distill his water downeward, which if you mixe with flower or bread, you shall make Pastils, which will be good to kill Rats or Mice, and that quickly, if you mixe therewith a small quantitie of Litarge.

To kill Rats and Mice.

Another manner of distilling waters per descensum, *and that without heat.*

You may make your distillation of flowers *per descensum* otherwise, without the heat of anie fire: Take two vessels of Glasse one like vnto another, both of them being made large in the bottome, and narrow at the top (after the manner of an Vrinall) and see that the mouth of the one will fit and goe into the mouth of the other, and then lute them well 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 very hot, and so it will distill a water that is very pleasant and sweet.

Water of the yellow parts of Violets.

Thus is Rose-water (sweetened with Muske) distilled, whereof wee haue spoken before in the Chapter of sweet waters: And thus are the yellow parts of Violets distilled; and the water thereof is verie singular for the redness of the eyes: And thus are the tender buds and shoots of Fennell distilled, being gathered before the Fennell doe put forth his flowers; the water whereof is very soueraigne for to cleanse away the filth of the eyes, and to comfort and amend the sight.

Chap. LXXIII.

Of the manner of distilling by the Filtre.

To distill by the Filtre.

THe causes of distilling by the Filtre we haue before declared, as namely, that they are either the separation of liquors in generall, or else the separation of liquors, of such or such qualities, as the separating of muddie and earthie from the finer and subtle 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 Oranges: againe, the prudent and expert Apothecarie, when he maketh syrrups of the iuices of Citrons, or Limons, doth first distill and straine the iuices by a Filtre, before he goe about to dispense the syrrups.

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 stand higher and higher, or lower and lower, euerie 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 be one or moe pieces of Cloth, or of a Felt of sufficient length, and dipt into the iuices, and these must be broad at the one end, and sharpe at the other: the broad end shall lye in the iuice, and the narrow-pointed end shall hang without, by the which the

the thinner part of the liquor ſhall riſe and aſcend, running downe drop after drop into the veſſell below, in ſuch ſort, as that the muddieſt and impureſt part ſhall ſtay behind in the other veſſell: and ſometimes you muſt wring out this piece of cloth, when it beginneth to become blacke, or that the drops 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 be diſpoſed to diſtill one liquor manie times, he may place manie veſſels after the manner of ſtayres, and in euerie one of them, except the loweſt, put a Filtre, in the ſame ſort as we haue ſaid: for the laſt and loweſt muſt ſerue onely to receiue from all the reſt.

In ſtead of a piece of Felt, the Apothecaries vſe oftentimes ſleeues of Woollen cloth, otherwiſe called ſharpe-pointed Hoſe; through which, they purifie and make cleare their Sirrups, Apozemes, and Iuleps: Theſe manners of diſtillations may ſupply the place of that long, tedious, and painefull circular diſtillation; which fitteth the Alchymiſts better, than either Countrey people, Phyſitians, or Apothecaries.

Virgins milke is thus made with a Filtre: Take Litarge of Gold 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 houres, 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 together. This virgins milke is good to heale Ringwormes, and ſawcie and red faces. *Virgins milke.*

A briefe Diſcourſe of the diſtilling of Oyles and Quinteſſences.

Chap. LXXIIII.

Of the profit of diſtilled Oyles and Quinteſſences: and what manner of Quinteſſences ſhall be here entreated of.

NOw, after our ſhort diſcourſe of the diſtilling of waters, limitted by the matter which Farmers ſtore will affoord, it ſhall not ſeeme ſtrange, or wandering from our ſcope and platforme layd downe alreadie, to make ſome ſlight and brieſe deſcription of the diſtilling of Oyles, to ſerue as a patterne and guide to the Miſtreſſe or good wife of our Countrey Farme, ſeeing wee are deſirous to haue her qualified with all thoſe good parts and vertues which *Xenophon* the Greeke Author doth ſo highly eſteeme of and commend in a good Huſwife: and namely, that of readineſſe and charitable prouiſion to relieue her folke and familie, as alſo her neighbours, when the caſe of neceſſitie, through ſickneſſe, 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 Oyles, amongſt other remedies, are found by experience to be the moſt forcible and effectuall, the pleaſanteſt, and of moſt ſpeedie operation, in the ouercomming of all ſorts of rebellious diſeaſes, but chiefely, wounds, vlcers, aches, ſwellings, and other outward accidents; it ſhall be verie commendable and beſeeming for the Farmers wife, or Miſtreſſe of our Countrey Farme, to haue ſome inſight into this kind of Diſtillation: not that I would haue her to buſie her braine about the matter much, or otherwiſe frequent and accuſtome it, but euen as a pleaſure and recreation,

and ſo farre forth, as the matter of her Gardens and Orchards onely, or not much more, doe 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 and extractor of Quinteſſences, or other idle or rich perſons, than vnto a good Husbandman. Now the things that ſhee may extract and diſtill, after the manner of Quinteſſences, are theſe.

Hearbes. Of Hearbes: Roſemarie, wild Thyme, Rue, Calamint, Organie, Lauander, Camomile, Sage, Hyſſope, Baſill, Smallage, Mints, Stœchados, Sauorie, Wormwood, Louage, Thyme, Penyryall of the mountaine, Iua Arthritica, Sauine, and generally all hearbes which are of a hot and drie temperature, and which haue a good and ſtrong ſmell.

Seedes. Of Seedes: Fennell, Anniſe, Cummin, Perſley of the mountaine, Dill, Zantonicum, or Wormeſeed, blacke and white Nigella, Sauine, blacke Poppie, wild Carret, and manie other ſorts of Seedes, which are of good or ſtrong ſauour and ſmell.

Flowers. Of Flowers: Lauander, white Mulleine, Hypericon, flowers of Oranges, damaske Roſes, Ieſamin flowers, and Roſemarie flowers, &c.

Fruits. Of Fruits: Iuniper, Bay, and Iuie berries, Pine-kernels, Capers, Abricots, and Peaches, &c.

Spices. Of Spices: Cinnamome, blacke Pepper, Cloues, Mace, ſweet Coſtus, Angelica, Imperatoria, Galanga, graines of Paradiſe, Nutmegs, Ginger, Cubebs, Cypreſſe, rindes of Oranges and Citrons, pillings of Walnuts and of Capers, and manie other.

Woods. Woods, and barkes of Woods: Roſemarie, Sauine buſh, Iuniper, Aſh, Guaiacum, Elder, the loppings and ſlifts of Trees.

Gummes. Gummes and thicke liquors: Maſticke, Frankincenſe, Myrrhe, Beniouin, Labdanum, Turpentine, Storax Calamite, Pitch, Tarre, &c.

Beaſts, or the parts of Beaſts. Beaſts, or the parts, or excrements of Beaſts: Serpents, Frogges, Scorpion, Ants, Mans bloud, Mans dung, Gooſe-greaſe, Egges, Honey, and Wax. To be briefe, all things that are of a hot and drie temperature.

It is true, that of cold things, ſuch as are the hearbes and ſeedes 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 painestaking, and in a long time, and ſuch alſo, which in the end will not haue the naturall and true force of the hearbe whereof it was made: for it will be either leſſe cold or leſſe moiſt than his ſimple, by reaſon of the impreſſion of the heat and drineſſe, ſuch as it is, which the fire hath left in it at the time of the diſtillation; as alſo for that the Oyle which is gathered of cold or moiſt ſimples, is rather a waterie, eager, ſalt-Peter-like, or ſalt liquor, than an oylie ſubſtance: Wherefore it is better to diſtill cold or moiſt ſimples by putrifaction, than by reſolution made by the worke of the fire.

Which be the diſtilled Oyles.

To make an end therefore in a word, the Oyles drawne of things by Quinteſſence, or reſolution made by force of fire, are an vnctuoſitie or radicall humour, which is, as it were, the life and forme that giueth being vnto the ſimple whereunto it belongeth, and that no otherwiſe than the naturall forme giueth being vnto all particular things whatſoeuer; and wherein alſo 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.

Chap. LXXV.

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 vnto 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 of all is this.

Build vp a Furnace of Bricke, or of Tyle, and fat Earth, or Mortar, or of Plaister alone, and make the same of a round shape (or at the least let it be so within) to the end, that the fire being carried vp on high, may disperse it selfe all ouer in a more equall measure: and withall, make it of a reasonable length and thickenesse, and not more than three foot high; and bearing a foot round of compasse and euerie way within at the least. There shall bee also three seuerall spaces or roomes in the whole height: the first, of one foot; the second, of a foot and a halfe; and in the third, all the rest of the Furnace. In the first roome there shall be a grate of yron to lay the coales vpon for the making of the fire: in the second roome, or loft, there shall be two roddes of yron, which shall be distant the one from the other about foure fingers, whereupon shall rest an earthen vessell of the fashion of an earthen pot or panne, and after such forme and manner as wee 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 and take out the ashes which are made therein, and at the higher of them you shall put in coales, and kindle the fire also. Furthermore, in the highest part of the Furnace, and likewise 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 vessell for to distill in, and that in a pot, bowle, or panne of earth or yron, and making a fire vnderneath the same.

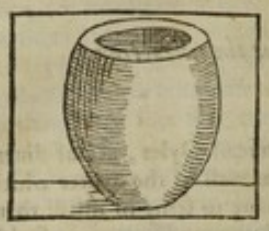
Chap. LXXVI.

What manner of Vessels must be vsed for the distilling of Oyles.

CErtaine it is, that manie doe vse diuerse sorts of Vessels for the distilling of Oyles: but leauing the examination of this varietie for such as propound vnto themselues to entreat exactly of Chymicall matters, as intending my selfe onely to giue some instructions vnto the good Huswife, being Commaundresse of this our Countrey House; I will here set downe but two sorts of Vessels for the distilling of Oyles: The one being fit and verie conuenient to distill Hearbes, Flowers, Seedes, Fruits, Rootes, and Beasts, or parts and excrements of Beasts: And the other, for Woods, Gummes, gummie droppes, and other thicke and vnctuous Liquors. And now for to speake of the first,

Two sorts of vessels for the distilling of Oyles.

Let there be made a vessell of verie choice earth, such as is verie cleane and verie well kneaden, made vp with like paine and industrie as the Potters make vp theirs; let it be of the thicknesse 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 away, almost to the one halfe: it must be great, and containing much, after the greatnesse and widenesse of the Copper vessell: and yet notwithstanding so great onely (especially in respect of his height) as that it may agree with the third and last loft of the furnace, and the widenesse euen and iumpe with the mouth of the furnace wherein it must stand: and in like manner the bottome must beare such breadth, as that it may be a little flatter than the space which is betwixt the two rods of yron, made fast and set ouerthwart at the end of the second distance of the furnace, to the end that it may rest vpon them the more firmely. And therefore to doe well herein, the furnace would be builded before that the vessell be made. When there is need of a great fire to distill withall, then it is prouided, that the pot, in this place, be not of earth, but of yron: as I my selfe haue seene at the Apothecaries.



This second vessell shall be of Copper, or of Latten, and shaped also like vnto an egge, or a gourd, hauing a wide mouth, whereunto there must be fitted a long or stretched-out necke, being at the least a foot in length, comming downe from the head, by the which necke the vapours in the gourd shall rise vp into the said head. This vessell shall hold twelue or fifteene pints, or otherwise shall be made of greatnesse answerable vnto the quantitie of the matter which you meane to distill, which generally is (as wee will declare by and by) that for euerie pound of matter, as of hearbes or seedes, &c. there be put into this vessell nine or tenne pound of water. Besides this, there must be such an agreement betwixt the greatnesse of this Copper vessell and capacitie of the earthen vessell which standeth within the furnace, as that they may be free one of another some two or three fingers, for the filling in of sand, as we will hereafter declare: And as concerning the height thereof; it, together with his head, must stand aboue that of earth a foot and a halfe at the least.

The head. The third vessell shall be the head, which shall be round aboue, and not sharpe-pointed, to the end that the vapour arising out of it may not fall downe againe: and it must be set about (as it were) with a little Stand, or Tub, wherein must be put coole water, for the easier thickening and fixing of the vapours: at the one side of this little Tub there shall be a spout, or pipe, which shall come out of the head, and by this the Oyle shall drop downe into the vessell receiuing: on the other side of this little Stand must be a tappe with a spiggot, and it must come from the capacitie of the same, that so it may emptie it of the water which it holdeth when it is become too hot. This head shall be ioyned with the orifice and throat of the last afore-named vessell, by the meanes of a large and wide pipe, which shall come downe from the head, and set it selfe in the mouth and throat of the said Copper vessell verie closely, to the end that no vapours in rising may passe out thereby anie way: and for the better perfecting of this inarticulation, there are two edges or brimmes, that so they may the better ioyne 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 Oyle distilled, and it must be of Glasse, because of the clearenesse and cleanenesse of the same.

This is the proportion and shape of the first sort of the vessels, and it is to distill Oyles of hearbes, seedes, flowers, and so forth.

A Doth

A Doth repreſent the bladder, containing the matter from which you meane to draw your Oyle.

B The mouth or throat 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 neck of the Stillitorie, which ſetteth it ſelfe as into a ioint vpon the mouth and throat 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 Oyle, and is made ſomewhat long.

G The ſpout or pipe by which the oilie liquor droppeth downe into the receiuing veſſell.

H The tap, which with his ſpiggot 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 the Head, for as much as they are of Copper or Latten, muſt be tinned within, to the end that the Oyle may not get anie ſtrange qualitie by theſe mettals, ſeeing eſpecially that the Copper being heated, and not tinned, may cauſe the Oyle to ſmell of the Braſſe, or of ſome other euill qualitie. It is true, that beſides the helpe comming by this tinning of the veſſels, the verie action of the fire, which worketh and diſpatcheth ſpeedily and violently where as there is great quantitie of water, doth keepe the Oyle from being tainted with anie euill ſmell, or other accident that is not naturall, and therefore there needs no feare to be taken for the vſing of Copper veſſels in the diſtilling of Oyles for the occaſions aforeſaid, although that earthen or glaſſe-veſſels would be farre better and more naturall (ſeeing in them there reſteth no iot of mettall-like matter) than either thoſe that are of Copper, or molten, or of anie other mettall, ſaue onely there is ſome danger of breaking or cracking of them, being the things whereunto earthen and glaſſe-veſſell are verie ſubiect when they are hot, yea, though they were armed with mortar, fat earth, cement, or anie other matter of defence; and then ſuch breach or cracke proueth a matter of no ſmall dammage or conſequence in the diſtillation of Oyles, eſpecially thoſe which are precious. 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 Oyles there muſt needs be vſed glaſſe-veſſels, or earthen ones, verniſhed and leaded, and not Copper or Latten; as which will verie hardly let runne anie Oyles from things that conſiſt of an eager taſte, whether it be that the Copper hath the like it ſelfe, or of ſome ſecret vertue and faculte which is in it. And this thing wee ſee ſufficiently tried in the ſeedes of Grapes, whoſe Oyle conuerteth and turneth rather into a greene ruſt in ſuch veſſels, than into anie airie or thinne exhalation, doe a man what he can either about the fire, or anie other way whatſoeuer: but in the diſtillation of fragrant and aromaticall things, as alſo thoſe which are ſweet in taſte, or haue a diuers qualitie from the Copper, it might ſeeme that a molten veſſell might be more conuenient.

The Gourd and the Head.

Chap. LXXVII.

At what time Oyles would be distilled: and how the matter and things whereof they are made must be prepared.

THe matter of euerie Oyle is to be distilled at such time, as when it is best disposed: that is to say, seedes and aromaticall things, when they are fresh and new gathered; for the fresher and newer that they are, so much the more excellent Oyle will they yeeld, especially the things that are of a sweet smell and aromaticall. And as for hearbes, 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 Oyle that commeth of them, for the most part, will be more full of scumme 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 moistnesse and feeding humor may be diminished and taken away, and that the oylie and radicall humor may be extracted more pure and sincere: and thirdly, that the hearbes themselues may be the more easily crushed and bruised. But on the contrarie side, if the hearbes be new and fresh gathered when they are distilled, they will yeeld sufficient store of Oyle, in as much as their naturall moisture will abound: but the Oyle will not be of such efficacie, nor yet so odoriferous, as when the merrie 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 Oyles of, there is not anie need to vse infusion, or putrifaction, 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 sauor and smell of the Oyle with that of the liquor: and againe, it would make them more moist than need would require, in respect of the pure and sincere extracting of the Oyle. 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 Oyle afterward, and following the way that we will speake of by and by, yet thereby you shall giue occasion of infecting your Oyle with some ill vice. For the matter being putrified, it is not possible, but that the Oyles should haue a smatch of it, seeing it is one part of the matter. That it so falleth out with Oyles that are so distilled of matter aforehand so putrified, although it doe not by and by corrupt, appeareth sufficiently: for in some space of time it is without all doubt corrupted, and that in a great deale shorter time, without comparison, than other Oyles which are drawne without putrifaction of their matter going before: by which it may appeare, what my aduice and counsaile would be to euerie man; namely, that the matter whereout you would extract your Oyle be not infused or putrified, but onely crushed, bruised, brayed, and brought into small pieces, so as that afterward they may be sifted through some wide sieue: which course shall doe as well, yea, rather better, than your infusing or putrifying of them without stamping, braying, and bruising of them; besides that, the businesse is sooner dispatched: yea, and if you would infuse and putrifie the matter, you should not thereby gaine three drops of Oyle more, than you should haue by onely beating and stamping of them.

CHAP. LXXVIII.

Of the manner and order that must be kept in distilling of Oyles.

WHen you haue prepared the matter whereof you meane to make your oyle, that is to say, bruised it, and brought it into small cornes, then passe it gressly through a searce, casting it into the vessell of copper with certaine measures of fountaine water, that is to say, to match two pound vveight of matter, with eighteene pound of vvater, and for that cause it is meet that the vessell should containe betwixt twelue and fifteene pintes, and yet the third part remaine void and emptie, vvhen the water and matter are both in. This vvater standeth in steed of a coach or waggon vnto the matter to be distilled, for the carrying vp of his vapors, and to seperate the humours by the decoction and boyling that it there maketh. You may adde or diminish of the quantitie of vvater, according to the matter his quantitie vvhich you are about to distill, vpon paine notwithstanding that you put in nine or ten times as much water as you doe matter, and 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 would distill, for being too great or too little, it would proue but cost cast away. It is true, that the two pound of matter, and eighteene of water here mentioned, is the most certaine rate that we can sticke to, for the most easie and plentifull maner of drawing of oyle: for if you put in more, the longnesse of time will become teadious: and if your put in lesse, you shall hardly draw ten drops of oyle. And yet in this point Ladie experience must be more than quarter maister, in as much as there is some matter which yeeldeth not any oyle, except it be put in a great quantitie, such as is Anise-seed and others, as vve vvill declare hereafter more particularly. Againe, you must obserue and marke this one poynt, that hearbes require a farre larger vessell and quantitie of vvater than seeds and spices when their oyle is to be extracted: because that weight for weight they take more roome than the seeds and spices doe: for hearbes lye not so close and round together, and therefore they require also in proportion a greater quantitie of vvater, for feare that they should become parched and dried away within the copper vessell.

After that you haue put the vvater and matter together into the vessell of copper, let them infuse fiue or sixe houres, 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, vvill serue in steed of an infusion vnto the matter) couer the vessell, and fit the head vnto it, lute them verie well together with whites of egges and meale kneaded together, and spread vpon a cloth in the place of their joyning and articulation. This done, set your earthen vessell in the furnace vpon the two yron barres, and make it fast to the furnace with potters-clay 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 void space must be filled vp with pure and cleare sand, euen so high as there is any space and distance betwixt vessell and vessell, yea, and further if one be so disposed euen to the necke of the copper vessell: prouided, that the nose of the head by which the oyle descendeth doe stand either to the right hand or to the left of the furnace: and yet this one thing commeth heere to be marked, that in distilling of aromaticall seeds onely there is vse and need of the said sand betwixt the said two vessells, and not in distilling of hearbes: for seeds and spices are of a more subtile and delicate substance (as their great heat do testifie) and the matter they yeeld is more delicate also and firme: For which causes it might fall out that the force of the fire might somewhat trouble their distillation,

that

that is to ſay, might cauſe their diſtillation to come forth a little troubled, and that euen in the verie beginning, if the fire be not moderately kept, and brideled by the ſand put in the void place betwixt the ſaid two veſſels: but in the diſtilling of herbes you muſt fit the veſſell of copper and the furnace together without the earthen veſſell and the ſand in the emptie ſpace: for as much as the hearbes in reſpect of their ſolideneſſe and harder ſubſtance doe craue a greater force of fire: vvhereof you may gather, that no oyles can be extracted by diſtillation in Maries-bath, that is to ſay, in ſetting of boyling vvater about the copper veſſell in a caldron: for ſo the diſtillation would be longer than it were meet it ſhould, and yet neuer a whit the more commendable: for Maries-bath, that is to ſay, boyling water, doth not afford a well proportioned and ſufficient tempered heat, but is long in doing, and the oyle doth ſtill draw vnto it ſome corruption if the vvorke be too long in doing, eſpecially if the matter be not moiſt of it ſelfe: for thereupon and by that meanes can the oyle hardly riſe ſo high as that it may find the way into the veſſell that ſhould receiue it, and becauſe alſo that it wanteth force and might, in as much as the boyling water cannot lift it vp ſo high of it ſelfe alone, as the cleare fire, earthen veſſell, and ſand, all vvorking together.

No oyle can be drawne in Maries-bath.

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 prettie ſtoole, in ſuch ſort as you ſee aboue in the figure: ſtop and cloſe vp the joynt of the ſaid pipe and receiuing veſſell vvith paſte, and bole armoniacke, or the white of an egge and flowre ſpread vpon a cloth. Then kindle your coales that you haue layed vpon the grate, and make a ſoft and gentle fire for the beginning, to the end that the matter may grow hot by little and little, and that ſo long as till the matter within the copper and the fountaine water doe boyle, but yet ſo gently as that it boyle not vp, to ſticke and hit againſt the head with the vvalmes thereof, as vve ſee it ſometimes to happen in ſome ſeedes, as aniſe ſeeds, vvhich by reaſon of their thin ſubſtance, as alſo of their viſcoſitie, do caſt vp their vvalmes and billowes with great might and force, and in ſuch caſe the fire muſt be rebated: or and if that yet the rebating of the fire cannot ſtay the furie of the billowes or boyling, 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, ſtayed, and dried vp by a reaſonable fire, putting the head vpon it againe afterward, and luting it as before. Feed 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 vvith cold vvater; for it cooling the head, will make thicke and fixe the vapours and ſpirites of the oyle, vvhich are verie ſubtile and hot, and turne them into oyle: vvhen this cold 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 doe not allow of cooling the head with cold vvater, 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 vvhence they breathing the ſecond time, and congealed, and falling backe againe as before, doe in fine by theſe manifold riſings and fallings, ſpend and vvaſte vnto nothing; or at the leaſt by continuall boyling, it falleth out that but a few vapours doe come into the veſſell of receit, and againe, thoſe ſame vapours ſo congealed doe not eaſily and preſently come forth, and ſo there is leſſe oyle gathered of the matter than would be, and that which is drawne, is ſomewhat tainted with burning. And therefore in ſteed of this cooling of the head for to congeale and fixe the vapours raiſed vp thereinto, they ſet verie neere vnto the furnace a veſſell vvith one bottome, hauing a pipe of tin 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 faſtened to the veſſell that is to receiue the diſtilled oyle: this foreſaid veſſell hauing this pipe paſſing through the ſides thereof, and cloſe faſtened therein, muſt

be

be filled vvith coole vvater, by the cooling whereof the vapours ſent or carried from the head in this pipe of tin are congealed, fixed, turned into oyle, and ſo drop downe eaſily into the receiuing veſſell with greater profit, and in greater quantitie, and better, than and if they had beene turned into oyle in the head by the cooling thereof with cold vvater. Who ſo is minded to vſe this meanes of cooling the vapours, may doe it, but notwithſtanding that former of ours is no leſſe beneficiall, commodious, and profitable, neither doth it worke that diſcommoditie aſore 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 vvhich is vvarme, or elſe by onely couering the round of the head with cloathes dipt in cold vvater, vſing to renew them oftentimes.

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 vapors be congealed one after another, and that all the liquor vvhich carrieth them, and which is within the copper veſſell be runned into the receiuer: the ſigne and marke whereof is, vvhen hauing put in eighteene pound of water or thereabout, you haue receiued backe about ten, 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 judged 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 another, in ſo much as that a man ſhall hardly 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 verie ſeldome is it longer in doing than ſixe or ſeuen houres, if ſo be the matter agree in heauineſſe and vveight vvith the vvater of the veſſell, as from two pound of matter to eighteene pound of water.

The ſignes of the diſtillation ended.

You muſt note in this place, that the oyle commeth forth now and then with the water; and that the water which diſtilleth with the oyle, 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 boyling which it hath had with the ſaid ſimple, during the time of the diſtillation, is become mixt by the force of the fire vvith the brayed matter, and ſo hath brought along with it the whole ſtrength of the ſame, as may be judged by the ſmell and taſte thereof, being no other than that of the ſimple. Wherefore this water which diſtilleth oyle 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 limbecke 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 oyle is drawne, is ſo deepely ingaged, incorporated and mingled in and with the brayed matter by the force of the fire, as that it carrieth away, obtayneth and holdeth all his vertue, as the taſte and ſmell doe ſhew which is in it, for both the ſmell and taſte doe draw verie neere vnto that which the oyle hath in it ſelfe, howſoeuer it may ſeeme that the oyle ſhould containe and keepe all the ſauour and ſmell vnto it ſelfe, ſeeing the oyle 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 oyle doth retaine (though yet not equally) the taſte and ſmell of the ſimple. Furthermore, you ſhall be aſſured how this vvater hath ſeiſed vpon the vertue of the ſimple, vvherewith it hath beene mixt in the diſtilling of his oyle, by this, that if you vvould diſtill it once againe, or many times, you ſhall find collected and gathered together in it the whole ſmell and taſte of

A comparison betwixt the water of the ſimple and the water vſed in the diſtilling of the ſimple.

To diſtill already diſtilled water.

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 vvater which was diſtilled with the oyle, diſpoſe and ſet in order all things neceſſary,in ſuch ſort as is wont to be done in the diſtillation of oyles 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 oyle.

Chap. LXXIX.

Of the meanes how to ſeperate the oyle which is runned with the water in diſtilling.

IT is verie certaine that the oyle vvhich ſhall haue beene diſtilled, is a liquor vvhich by the meanes and force of the boyling water wherewith it is mingled, hath beene ſeperated and forcibly drawne from his matter,and held off the ſame,and with it alſo conueyed along into the receiuer. And for this cauſe the oyle vvill be alwaies vvith the water,but notwithſtanding not alwaies ſwimming vpon the water: for ſometimes it vvill be in the bottome, and ſometimes mingled all amongſt the water: if the oyle be more heauie meaſure for meaſure than the vvater,it vvill 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 vvooll, then it vvill be mingled amongſt the vvater. Againe, the oyle will goe to the bottome, if it be made of a thicke ſubſtance and well compact,as is that of cinnamome, cloues, and other ſuch like. The oyles which confuſedly (for the time that they are congealing through the cold) goe croſſe the water, are the oyles of aniſe and fennell-ſeed, and that by reaſon of a certaine proportion which they haue with the weight of the vvater. Therefore for the ſeperating of the oyle vvhich the water hath carried along vvith 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 ayre) be vnſtopped,if ſo be that after attentiue beholding of the receiuer,it appeare that the oyle is gathered into the bottome of it: for ſo, the cement or vvaxe taken away, the oyle vvill come out, and the vvater ſtay behind in the veſſell,if by ſtopping the hole in time it be your mind to keepe it there. If the oyle ſwim aloſt vpon the vvater, if you vnſtop the foreſaid hole in the bottome, the vvater will run out below,and the oyle vvill 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 viole prepared for it, but this you muſt take heed vnto: but and if the oyle be mingled amongſt the vvater in manner of a cloud,ſtrayne the water through a fine linnen cloth,vvhich afterward vvil be eaſily gathered together vvith a knife,in ſuch ſort as that you may put it vp in a viole, wherein afterward if need be, you may turne it into a thin liquor by a ſmall heat ſet in the Sunne, or vpon hot aſhes: if the oyle ſwim vpon the vpper face of the vvater, you ſhall ſeperate it in a furnace of digeſtion vvith a ſiluer ſpoone:

you may alſo vſe other meanes to ſeperate your oyle from his fellow vvater, as for example, by a funnell of glaſſe, putting your finger toward the poynt of it and vnderneath, and doing the like oftentimes vnto that, vvhich hath been done by the receiuer,that is to ſay, by powring of liquor into the ſaid funnell. You may likewiſe doe the ſame by the ſucking of the vvater out of the receiuer; for ſo you may ſucke out all the water and leaue the oile

oile in the bottome, vvhich sucking may be performed by pipes of plate made after the fashion of those vvhich you see pictured here: vvhich vvill draw all the vvater in a short time out of the receiuer, as you see them vsed in France, to cause vvater to runne in manner of a fountaine, out of any bucket or other vessell wherein water is contayned.

Chap. LXXX.

Of the faculties or properties, continuance, and vse of distilled Oyles.

SEeing that distilled oyles, as vve haue before declared, are the radicall humour of euerie matter: and that such radicall humour, is as it were the soule and forme which giueth being vnto all matter, and vvhereupon depend the vertues, powers, faculties, and actions of the said matter: you need not doubt, but that the vvhole and intire vertues of simples distilled is imparted vnto the Oyles drawne from them, and that in a purer and most subtile manner, in as much as by such chymicall resolution, the most subtile substances are seperated from the grosser, by being mingled vvherewith, they vvere greatly weakened and hindered from doing their effects: and so it also commeth to passe, that looke vvhat vertue vvas in a pound of the simple, is contayned in a dram more or lesse of the oyle: besides this, such oyles haue this propertie amongst others, that by a meruailous subtilenesse of substance vvhich they haue gotten by the fire, they doe slylie pierce into the most profound and deepe parts, and quickly vvorke their effects.

As concerning their lasting and continuance, they vvill keepe long, especially if (after they haue beene rectified, that is to say, yet once more distilled vpon ashes vvith a small fire in a retort) you stop them vp in bottles of double glasse, and such as are armed and close stopt vvith Cement or Masticke, or Waxe and Masticke mixt together, without giuing them any ayre, except at such times as you vvould vse them, and which then you cannot doe vvithout damage done vnto them: for seeing they be all ayrie and firie, they cannot chuse but easily euaporate and spend, and that in such sort as that it may be euidently seene and discerned, as amongst the rest will easily be found true in oyle of camphire. *The continuance of distilled oyles.*

As for the vse; that is in drops, if you take them simplie and alone by themselues, vvhether it be into the bodie or vvithout, as you shall vnderstand hereafter. But to vse them to the most profit inwardly, you must dissolue sugar in violet, rose, cinnamome or other such like waters, and into it cast one or two drops of the oyle which you would vse, and so make vp lozenges thereof. *The vse.*

Chap. LXXXI.

A particular description of certaine Oyles that are distilled according to the former methode.

BVt the oyles of Seeds, as of Anise, Fennell, Elder-tree, Cummine, and others are distilled after this manner: Take such quantitie of Seeds as you please, as fiue or sixe pound at the least, and for the better bruise them grosly, seeing carefully to it, that not so much as one seed continue vvhole, put them into the vessell of copper: poure in vpon them of cleare fountaine water

vvater fiue and twentie or thirtie pound, mingle them diligently together, couer the vessell vvith his head, and doe in manner as hath beene said before.

The oyle vvhich distilleth first, is of greater efficacie than any one; for vvhich cause, the receiuer may be twice or thrice changed.

This thing is vvorthie obseruation, that oyle of anise-seeds in the time of Sommer cannot well be distilled, because that the spirits thereof are too subtile, and much more subtile indeed than those of Fennell: vvhereupon it followeth, that at the heat of the fire they doe easily spend by euaporation, though it be guided and kept verie 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 vvhen it runneth downe into the receiuer. After that you haue strayned it through a cleane linnen cloth, all the vvater passeth away, and the oyle tarrieth behind in the linnen cloth, and vvhich you must dissolue shortly after in a great glasse by the heat of a fire-pan, and so the flegme is easily seperated. This is a singular oile, whether it be taken alone by drops with wine, or broth, or sugar Lozenges, for to comfort the stomacke, helpe digestion, and discusse winds; for rhewmes also, and diseases of the lungs; as also for the mother; whereupon it commeth, that it stayeth the whites of women.

Fruits. Fruits, as of Iuniper berries, &c. by reason that they are somewhat more oylie than hearbes and seedes, doe not require such quantitie of water as hearbes and seedes: so that for a pound of fruits, fiue or six pound of water will be ynough. They must bee brayed sufficiently small, put into the gourd, and dealt with as seedes and hearbes are dealt withall: The Oyle commeth forth first, and afterward the water.

Spices and aromaticall drugs. Spices and aromaticall things are distilled after the same manner that seedes are: but in their distillation mingle not Wine or Aqua-vitæ, as some doe, but onely pure fountaine water: for Wine and Aqua-vitæ rise vp presently, without carrying with them the vertues of the aromaticall things; whereas the water riseth not vp, without taking with it the aromaticall things. The Oyle of Nutmegs swimmeth aloft, and so doth that of Mace.

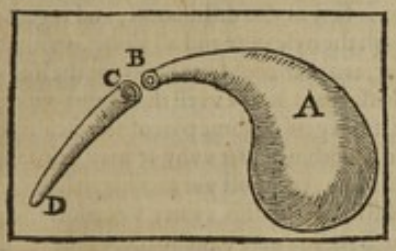
Oyle of Cinnamome. For to distill Oyle of Cinnamome in excellent manner: Bray a pound of Cinnamome in such sort as that it may goe through a sieue, but beat it not all to powder, put it in a gourd, and powre vpon it water of Buglosse, Borage, Endiue, and Balme, of euerie one halfe a pound, let them stand together foure or fiue daies in the vessell well stopt: then out of this gourd powre them into another 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 manner, take it away as the best, for that which followeth is of a great deale lesse vertue than the first, but yet may be kept to infuse new Cinnamome in. After the same fashion you shall distill Cloues, Pepper, Angelica, Galanga, &c. See in our secret remedies.

Chap. LXXXII.

Of the manner of extracting Oyles out of Wood.

For as much as the oylie substance of wood is more tenacious and clammie, by reason of the slyminesse thereof; 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, than those of seeds and plants, which we haue entreated of before. I know well, that some doe accustome to draw Oyles *per descensum*, as they vse to call

it, in two vessels of earth set one vpon another, and a plate of yron with a hole in it, betwixt them both: but such Oyle is nothing worth, 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 be fashioned like a Bladder, Cornet, or bagge of a Shepheards Pipe, called of the Chymists a retort: it must be of glasse, or else of earth, and varnished and leaded within, and of such bignesse, as that it may containe a dozen pound of water, hauing a necke of a foot and a halfe long, or a foot long at the least, and bending downeward: It is to consist of two parts; the one of them stretching from the bellie of the said bladder forward, some 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 ioyne with the former part by the meanes and helpe of some fastening matter, as glue or cement of Bole-armoniacke; and yet in such sort, as that they may be set together, and taken asunder, when need 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 bodie, 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 here, for else the hand cannot enter into it.

C The other part of the Retort, into which must be inserted the nether 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 sharpe-pointed, to the end it may be inserted and put into anie 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 stead thereof, in a vessell or pot of yron good and wide, and filled with sand or ashes, or without anie thing in it, and that vpon a brandrith, if there be need of vsing a verie great fire, as we see it daily practised amongst the Apothecaries.

The preparing of wood for to draw oyles out of.

Wherefore, to draw oyle out of oylie wood, you must first make it small, and bring it into pieces, in such sort as Turners doe, with turning of wood, and not with anie Saw, or anie 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 hardly and with great difficultie yeeld anie oyle: put into the Retort two pound of this wood, diuided into pieces after the manner of the Turners, and as much Aqua-vitæ, for the steeping and infusing of it, let them infuse together certaine daies. This Aqua-vitæ, by reason of his subtlenesse, pierceth more easily than any other liquor, and likewise without any difficultie separateth and forcibly draweth the oyle from his proper subiect, and yet in the meane time it neither changeth nor corrupteth, any manner of way, the nature of the said oyle, because it draweth neere vnto the temperature of oyles; which is the cause why we mingle with the wood Aqua-vitæ rather than common water: howsoeuer, I do not any thing doubt of the maner before described about the distillation of oyles, hearbs, & seeds, in which is vsed the vessell of Copper with a head, powring thereinto

ſome cleare fountaine vvater, as though it could not be verie certaine and profitable for the extracting of oyles of vvood: vvere it not that vve doe feare more than any thing elſe, the ouer great and vehement boyling thereof, proceeding of the diſagreement of the drineſſe of the matter, and moiſture of the vvater vvhich might hinder the courſe of our diſtillation. Adde hereunto alſo that ſuch kinds of oiles can hardly riſe to the inner top of the head, if we ſee this faſhioned copper veſſell.

The placing of the veſſells.

When as the vvood hath beene ſufficiently infuſed, place the earthen pan in the vppermoſt part of the furnace vpon the barres of yron, ſet the retort within this earthen pan with ſand in the emptie ſpaces betwixt, as alſo couered ouer vvith ſand, cauſe the necke to paſſe through the cleft made in the vppermoſt part of the furnace, and to turne downeward towards the receiuer, into the mouth vvhereof it muſt be cloſe joyned, and as carefully and firmely luted vvith 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 vvherein 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 beat backe the heat againe vpon the ſaid 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 vvorke, vntill ſuch time as the Aqua-vitæ before infuſed be all of it diſtilled, for this is it vvhich commeth forth firſt in the diſtillation, and is gathered into the receiuer: then after this commeth the oyle pure and all alone, vvithout 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 vvhatſoeuer: keepe vvell this Aqua-vitæ to ſerue you againe for the ſame vſe, becauſe it ſtill is getting ſome part of the facultie of the matter wherewith it is mixed, and there is nothing to let vvhy it may not ſerue twice yea thrice. When the receiuer is taken away, you muſt put another in his place halfe full of cleare water that the oyle may diſtill into it: this vvater vve allow in the receiuer, in reſpect of the impreſſions vvhich the fire may haue made by too vehement a boyling in the oyle, that by the meanes of this vvater the ſame may be corrected and taken away, and the oyle alſo kept the better from euaporation, vvhich thing is yet the more fitly atchieued, if you ſet your receiuer in a baſon or other veſſel full of cold vvater, changing and renewing the ſame from houre to houre, till the diſtillation be finiſhed. You may alſo change your receiuer if you thinke good, once or twice, the better to know the differences of your oyles. The diſtillation accompliſhed, vvhich you ſhall gather by the markes before ſet downe, you ſhall ſeperate the oyle from the vvater by the meanes alſo aboue ſet downe, and at the ſame time or before any of theſe things done, take your retort from the fire, and take off his necke, emptying the bellie of the droſſe and excrements ſettled and ſtaying behind: vvhich afterward you ſhall temper with vvater ſo oft, as that hauing ſtrayned them and boyled them againe, they come forth thicke and ſmall like pap-meat, which is alſo good for the ſame diſeaſes, that the oyles are good for. After this order is the wood Guaiacum diſtilled, vvhich is ſingular good for the vlcers and paines happening in the French-pockes. The oyle 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 oyle of Iuniper-wood is a ſpecial good thing in the comforting of the reines and matrix.

Oyle of Guaiacum wood.

Oyle of Aſh-tree wood.

CHAP.

Chap. LXXXIII.

Of the manner of drawing Oyles of Gums, and first of those that are liquid.

FOr the distilling of Oyles of Gummes, you must vse the same furnace and retort wherein you distilled your oylie vvoods: but to tell you the truth, they are not distilled without much paine, by reason of their glutinous clamminesse, giuen to hold fast their radicall humour and moisture. And vvhich is more, there are as many wayes of drawing oyles of Gummes, as there are differences of Gummes. For some are liquid, that is to say, in substance like birdlime, vvhich vvill hardly be kept within his bounds, such is Turpentine, liquid Storax, and such other like, vvhich participate more of an oylie qualitie than of an earthie, and so are easily resolued with a small fire. The others are hard, as is incense, benjoume, and masticke, vvhich require a reasonable heat to be mollified vvith. Some againe are resolued with a vvaterie humour, as Myrrhe, and Gum arabicke.

Therefore to distill liquid gums, and to draw out their oyles, 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 oyle of Turpentine thus: Take cleare Turpentine as much as you please, and for euerie pound take of the ashes of some hard and strong vvood two ounces, or small sand, vvashed grauell, or the powder of brickes, to keepe the Turpentine for rising high and swelling, put all these in the retort, vvhich 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 vvater vvhich vvill first come forth, and after make it bigger for the distilling of the Oyle. It is likewise distilled another and that a new vvay. Take two pound of Turpentine, and eight pound of fountaine vvater that is verie cleare, put both into the retort together, and distill them at a reasonable fire, following the order set downe for oylie vvoods. The Oyle vvhich you shall gather, vvill be most pure and fine, of a verie cleare and bright colour, of a sweet smell and pleasant tast, vvhich properties are not to be found in the oyle which is drawne after the common and ordinarie fashion: and this commeth to passe by reason of the vvater tempering the qualities conceiued and begotten in the matter distilled by the force of the fire and heat of the vessell, vvhich otherwise would haue begotten some fierie impressions, therein had not the resisting qualitie of the vvater vvithstood the same by his moisture, and that so much the more, for being likewise receiued into a receiuer halfe full of faire and fresh vvater, vvhich affordeth another good helpe likewise vnto the same: of all which helpes, the common manner of distilling this oyle vvith sand and ashes hath not one, as is too apparant in the vnpleasant taste and blackish or sad yellowish colour, and that it is not fit to be vsed about the bodie outwardly, so farre is it off from being worthie to be taken inwardly, vvithout the endangering of the sicke partie; beside the vnpleasantnesse of the tast: but this vvhich is distilled vvith vvater is singular good for all manner of diseases, for which it is so highly commended of all men, as namely for the shortnesse 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.

Two waies to extract oyles out of liquid Gums.

Oyle of Turpentine.

Thus is Oyle of Waxe distilled.

But and if you desire to know vvhen your Oyle is all distilled, then you must marke and see vvhen it ceaseth to runne out of the retort into the receiuer, for then the distillation of the best and most excellent Oyle is finished. And in case you yet desire to draw some more oyle out of the rest of the matter remaining within the retort, you may doe it verie easilie, 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 retort,

vvhen the distillation is ended.

which muſt be verie well fitted and luted againe with the other part as it was before; for the lead being molten, doth reſolue the gum remaining, in ſuch ſort, as that whatſoeuer is oylie, will diſtill as oyle, and you ſhall gather it in another receiuer. All vvhich finiſhed, you ſhall take the retort handſomely out of the furnace, reſeruing the ſame to ſerue you againe in like time of need.

Chap. LXXXIIII.

Of the manner of extracting Oyles out of hard gums.

Our hard gums, ſuch as is frankincenſe, benjouin, maſticke, and waxe, ſeeing they are of a more earthie ſubſtance, haue a faſter and firmer conſiſtence, and are reſolued more hardly than the liquid ones, and ſo aske not onely more labour to haue their oyles drawne from them, but ſtand in need alſo to haue ſome ſort of oyle, and a reaſonable fire to mollifie and ſoften them, to the end that afterward they may the more freely yeeld their owne Oyle. It is true, that euen of theſe there are ſome of them more tedious and ſtiflyer reſiſting to be diſſolued, as Frankincenſe, and Benjouin: and otherſome more eaſie to be molten, as Wax: 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 be reſolued, muſt be more or leſſe mollified and melted before hand, by the meanes aforenamed in the diſtilling of liquid gums: the vvater only excepted, which muſt neuer be put into the retort with any thing to be diſtilled. It is alſo to be conſidered and vveighed, how that hard gums doe verie hardly indure and abide any vvater, vvhiles (incloſed vvithin the retort) they ſuſtaine the violence of the fire, but in ſteed of fire, one may put thereto of oyle of Turpentine, to the quantitie of three ounces, as well becauſe this oyle is moſt pure and diſtilled with a reaſonable heat (as we haue ſaid before) as becauſe it hath a property drawing neere vnto the nature of theſe gums, whereupon it ſeemeth the more fit to be vſed in the diſtilling of theſe gums, as ſeruing notably to correct their hardneſſe: againe, this vvay more oyle will be drawne, than by vſing of vvaſhed ſand and grauell caſt vpon the matter: and according as vve ſee commonly practiſed of Oyles of all ſorts of gums. And in caſe you haue not oyle of Turpentine in readineſſe, you may vſe ſome other ſort of oyle; prouided, as much as poſſibly may be, that it incline not notably either vnto any colour or ſmell: notwithſtanding by this meanes you ſhall not doe more good than by the former. For there is ſome kind of gum ſo troubleſome to be reſolued, as frankincenſe, as that you muſt be 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 morſells or lumps of lead, and vvith raiſing of the necke of the retort a little higher than is vſuall in the diſtilling of Turpentine and oylie vvoods. By this meanes vvithout all doubt you ſhall ſee ſome ounces of oyle ſwimming on the top of the water within the receiuer, after that the matter hath growne hot: vvhich (for as much as they would be tainted with ſome ill ſmell and vnpleaſant taſte, becauſe of ſuch qualitie as they haue gotten through the vehementneſſe of the fire, then incloſed with 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 cleare and excellent; you ſhall take two pound of the ſaid matter and gums, vvhereof your reſerued oyles were made: you ſhall put them in a cleane retort, vvhich you ſhall ſet ouer the fire, hauing the necke hanging downe ſomewhat more low, and in a ſhort time (and that vvithout any great force of fire) there vvill be wrought a certaine kind of butter, vvhich will run out in great plentie, being as it were

were of a middle consistence betwixt the gum and the oyle before distilled. Againe, you shall take this butter-like matter and put it into the retort, hauing first made it verie cleane, and then set it vpon the furnace the second time, with certaine ounces of purged oyle vvhich you shall haue drawne before from the same kind of gum. By these meanes, and the helpe of a reasonable fire giuen vnto it, you shall draw as much oyle (and that most exquisite) as Art and Nature could joyntly giue together. And thus much for the sure and certaine way of extracting of oyles of hard gums, which though it be costly, ought notwithstanding for the excellencie thereof be rather practised than 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, jet, brimstone, and other such kind of things, being first made into powder, and putting thereunto common oyle, which hath beene first cleansed and purged in a leaden vessel or warme water.

Oyle of Waxe is thus prepared after the common manner: Take a pound of new Waxe, you shall wash it thus: melting it at the fire you shall cast it by and by into a vessell full of vvhite Wine, worke it well with your hand after the manner of paste, sometimes drawing it out at 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 hands as before, and thus you shall doe three or foure times, till you see the wax to haue spent about the quantitie of a pint of vvine; this done, put it thus prepared into a retort, and cast vpon it grauell, washed sand, or powder of brickes, notwithstanding that it may be distilled without grauell, sand, or brickes, as is tried by experience: lute the retort all about, euen vnto the middest of the necke, and set in an earthen pan full of small ashes vpon the fire, which must be but soft and gentle at the beginning, but augmented and made greater afterward from degree to degree, the oyle will distill and come forth verie cleare. *Oyle of Waxe.*

Others prepare it after this manner: They set an earthen vessell full of white or red wine vpon the fire, whereinto after that the Wine is become hote, they cast the Wax diuided into many morsells: after they cause the vessell to boyle being close couered, and when the wine is spent, they powre in other, vntill that euerie 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 burn, and presently cast the Waxe into another 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 heed be taken that it boyle not in distilling, as in Turpentine and honie, 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 boyling 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. *Another manner of making oyle of Waxe.*

This oyle is singular good for to suppurate and ripen impostumes, asswage paine, comfort the hard and strayned sinews, and for the palsie. The water distilled before the oyle doth meruailously heale all sorts of wounds, if they be washed therewith, and a linnen cloth wet therein, laid vpon them. *The vertue of the oyle of waxe.*

You may distill after this manner, benjouin, ben, ladanum, and other such like gums: you must also note here in this place, that hard gums may be distilled with water, as the oyles of hearbes, and seeds before specified.

Chap. LXXXV.

Of the manner of extracting Oyles out of Myrrhe, Storax Calamite, Gum arabicke, and such other like.

MOst certaine it is, that the liquor which is extracted and drawne from Myrrhe, Storax calamite, and Gum arabicke, is not an oyle, but a grosse, slymie, and glewie matter: vvhich is perceiued and knowne, because they take not fire, yea and if you meet vvith any of them at any time that vvill burne, then know that it commeth by the mingling of some other oyle therewith, and Aqua-vitæ.

Take therefore verie new egges, and make them verie hard in hote vvater, afterward cleaue them in the middest, and take out the yolkes: and in their place putting as much Gummes, and that before they be cold, joyne the two parts of euerie one of them together againe, and making a hole through the peeces of the smaller end, hang them in a caue, to the end that the moisture of the place may cause the Gumme (whether it be Myrtle or Storax calamite) therein inclosed to resolue the more easilie: set vnder euerie egge a viole, and there will drop downe into it a matter much like vnto honie, or thinner. This done, gather that which is distilled into a viole, and set the same verie vvell stopped, deepe in the horse-dung, to the end that by his heat (being good to alter and putrifie the slymie qualitie of this matter) it may be corrected, and made more moist and like vnto oyle.

Fiorauanto, an Italian Empericke, in the seuen and fiftieth Chapter of his second Booke, and the thirteenth Chapter of the fourth Booke of his Vexations, prepareth the oyle of Myrrhe after this manner: Take of elected and true Myrrhe six ounces, of Aqua-vitæ without any flegme twelue ounces, mingle them together in a retort of glasse, vvhich you shall set vnder horse-dung verie hote the space of fixe dayes, afterward distill them in Maries-bath till all the water be risen and wholly gone: then you shall see in the bottome of the retort, oyle, vvhich you shall straine through a linnen cloth, and keepe it to preserue the face a long time, and continue it in his young and youthfull brightnesse and freshnesse. This oyle is a verie fit balme to conglutinate and heale wounds speedily, as also to cure all other inward diseases in taking two drammes thereof inward: it is good also for the deafenesse of the eares. Looke for the larger handling of the distillation of oyles, in our Booke of secret medicines.

The Silke-worme.

Chap. LXXXVI.

Of the profit comming of the Wormes that spin silke.

THe good Huswife, vvhich hath the ouersight, gouernement, and disposing of the cattell, must not make lesse account of the Silke-worme than of the Honie-bee. For, besides the pleasure which she may conceiue of the meruailous industriousnesse of this little beast in making and spinning of Silke, she may also reape an incredible profit of so excellent a worke,

worke, which honoureth and maketh men glorious, being attyred with the pompe of this workmanship and piece of cunning skill: insomuch, as wee see, that Kings, Princes, Gentlemen, Prelates, Iustices, and other great and notable personages are vsually decked and apparrelled with the trauaile of these prettie creatures. And which is more; the silke serueth not onely for the apparrelling of men, but also for a singular remedie to comfort the heart that is sicke, and to reioyce and recreate all the heauie and troubled spirits of anie one: as wee may well vnderstand by that famous confection, called of the Physitions Alkermes; which being compounded, for the most part, of the decoction and infusion of Silke in the iuice of Kermes, and being taken inwardly, it is a verie soueraigne remedie against faintings and swownings. Wherefore the good wife or Mistresse of our Countrey Farme shall make great account of the keeping of Silke-wormes, to the end that shee may reape the profit of the sale of the Silke which shee shall gather from them yearely: which profitable practise is verie well knowne amongst the wiues of Tourraine here in France.

Chap. LXXXVII.

Of the situating of a place to keepe Silke-wormes in.

IT is necessarie also, that the carefull Huswife, for the vndertaking of the gouernment of Silke-wormes, and for the making of her best commoditie thereof, doe chuse out some conuenient place about the Farme for the better ordering and keeping of them: and it must be rather high than low, hauing a good ayre, and without moistnesse, being so prouided of Windowes, as that the Sunne may come in at them both morning and euening, if it seeme good vnto 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 verie 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 anie hard weather commeth. He must likewise haue Nets and Cords before the Windowes, to the end, that the paper-Windowes being opened, the Sparrowes, Swallowes, and such hurtfull birds, may not get in, to feed vpon these Wormes. Neither Cocke nor Henne must come in heere: for they would so rauenously feed vpon this little Worme, as that they would be readie to burst. The floore must be kept verie cleane; and the walls without holes or creuises, by which neither Crickets, Lizards, Rats, or other like vermine, may enter and get in, to kill and spoyle these little things, either night or day. In it there must be ouerthwart partitions with pillars, and vpon them shall be fastened manie boords or hurdles, made of the stalkes of Rose-trees, for to pleasure this small wretch withall: and these, before you set anie Wormes vpon them, must be sprinkled with a little vineger, and rubbed with sweet hearbes, because they loue sweet smels.

Chap.

Chap. LXXXVIII.

Of the gouerning of Silke-wormes.

THe carefull Huſwife, ſo ſoone as the Spring draweth neere, and that ſhe ſhall ſee that the Mulberrie-tree beginneth to bud, ſhall make in readineſſe egges of Wormes, which ſhee hath kept all the Winter before, to be brooded and ſit vpon. And if ſhee ſee that the Mulberrie-tree is ſlow to bud, ſhee ſhall lay freſh dung vnto the rootes thereof during the new Moone of March, thereby to bring it forward: for otherwiſe, for lack of the leaues of the Mulberrie-tree, if it ſhould come to paſſe that her Wormes ſhould be hatched or bred, ſhe ſhould be conſtrained, for their food, to haue recourſe to the heart of the Thorne, Elme leaues, the tender branches of Nettles, and others. And as concerning making of choice of ſuch Wormes as are to be breeders; you muſt take the ſeed which is but a yeare 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 hereafter: The time of brooding them, is the fifteenth or twentieth of Aprill, from the fourth vnto the tenth day of the Moone, but neuer in the decreaſe: for wrapping their ſilke round about it, they will bring it forth the fourth day, at ſuch time as they are ſtrong, in ſuch ſort, as that their ends and huskes will bee greater, harder, and more finely haired, than anie other that are bred at another time: for thoſe which are bred in the decreaſe of the Moone, are alwayes feeble, and yeeld no profit. The meanes to make them breed, is, after that you haue watered and bathed them with white Wine, rather than warme water, to lay them neere the fire, vntill they be a little warmed: then to lay them betwixt two pillowes ſtuffed with feathers, and made likewiſe ſomewhat warme, or betwixt the breaſts of women (prouided that they haue not their termes at that time) and ſo, as the Wormes doe breed, to take them away with Mulberrie-tree leaues, making choice of thoſe which are moſt tender: and then to lay them vpon boords, or papers, that haue beene rubbed ouer with Wormewood or Sothernewood, or ſome ſuch like hearbe. When they are once bred, they ſhall haue the leaues of Mulberrie-trees giuen them euening and morning, encreaſing them euerie day, as the Wormes ſhall grow greater and greater, vnto the fourth change: for then alſo they will ſtand in need to be fed at noone, becauſe they eate more at that time than they were wont: but you muſt bee admoniſhed, that when they mue, or change, you muſt giue them ſomewhat ſparingly, becauſe as then they are weake and feeble: And in anie caſe let not the leaues be rotten, moiſt, or wet: but 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 toppes of hills, and ſtanding open vpon the Sunne, and of old trees, rather than of young 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 vnto the Wormes to eate. Theſe little beaſts may not be touched with your hands but as little as may be: for the more they are handled, the more they are hindered thereby, becauſe they are verie exceeding tender and daintie, eſpecially at ſuch time as they doe caſt, or change. And yet notwithſtanding, they muſt bee kept verie cleane and neat, and all their little dung taken from them euerie three daies. The place muſt likewiſe be perfumed with Frankincenſe, Garlicke, Onions, Larde, or broyled Sawſages, that you may miniſter matter of pleaſure vnto theſe little creatures: and againe, if they be weake and ſicke, theſe ſmells refreſh and recouer them againe.

The gathering of the Mulberrie-tree leaues.

They

They must also be marked whether they sleepe, or no: for seeing they are wont to sleepe foure times, especially when they cast and change; if it happen, that anie of them be still eating, and sleepe not, they must be put apart, without hauing anie meat to eat, that so they may fall to sleeping, for else they would all burst: and it is as true, that if they be breeding of young, they must be soberly dieted. After that they haue cast and changed the fourth time, within three daies after they will eat better than euer they did, vntill such time as their bodies begin to shine, and that they make manifold shew of the silke thread 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 fore-tell the same. Thus they feeling themselues well filled and fedde, they seeke out some resting place for the purpose to fasten themselues vnto, and there orderly to auoid their silke, euerie one shutting vp himselfe in his scale or huske, which they make and build vp in two daies, or a little more. Then you must be carefull to haue in readinesse for them, round about the Tables, good store of Broome, Brakes, branches of Vines, Oake-tree boughes, Chesnut-tree boughes, and other things: and withall, let them be verie drie; for moisture is their enemie: and then not to giue them ouer, vntill they be all fastened and hanged vpon these branches, there to make their worke: whereof they be so eager, as that they grow madde vntill they be packed vp in their little clewes and bottomes, 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 into some place for the purpose. They haue finished their worke in two or three dayes, more or lesse, and as the weather groweth hot or cold at that time: And as it is easie to perceiue when they are all at 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 part, in their huskes twentie dayes, more or lesse, according vnto the tendernesse, softnesse, or hardnesse of their bottomes of silke. As concerning the choice 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 layeth her egges no sooner in the morning than shee coupleth with the male againe. The scales or huskes being thus chosen, those which are good for encrease, must be put into a place where no dust is, and well couered: the double also must be separated from the single, to the end, that they may make the fairer silke: and especially there must choice be made of such people as are the best workefolkes, 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 choice of the best for encrease and breeding: those which are the grossest and blackest, are the strongest, and affoord better egges than anie of the other. You must likewise take more females than males: and for the knowing of the one from the other, the eyes of these creatures doe sufficiently testifie thereof; for the females haue thinner eyes, and not altogether so blacke, as the males: They must also be put asunder, and white Linnen clothes spread, or rather leaues of Paper, vpon little Tables, for to receiue their egges: The Paper is more naturall and commodious than the Linnen, because it may be the better raked ouer with a knife, to draw together the egges thereupon, without making of anie spoyle at all.

Signes that the wormes would make silke.

For to know the colour of the silk

The choice of the fleeces.

The choice of breeding wormes.

The difference betwixt male and female wormes.

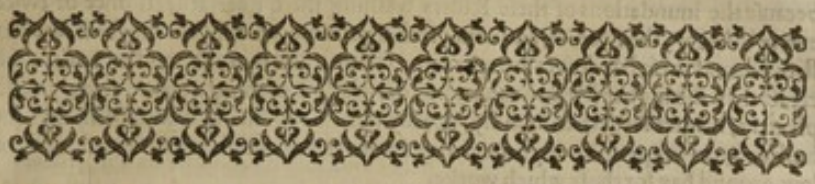
As concerning the diseases whereunto these little creatures be subiect: When they haue not beene so carefully looked vnto as they should, to be kept cleane; when the cold Northerne wind, or the hot Southerne Sunne hath molested them, as also when they haue eaten too much; then they become sicke: wherefore you must keepe them cleanely: stop the windowes and holes by which the cold windes doe enter and

The diseases of silke-wormes.

and get in, and carrie coales of fire that doe not ſmoake, into their lodging, ſetting thereupon Frankincenſe or Sawſages 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 ouer-eaten themſelues, the contrarie diet will cure them; as the keeping of them three or foure daies without eating anie thing: If there be anie of them that are ſpotted with anie 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 companie of the reſt, and carried out: and in the morning, before the Sunne riſe, ſet the whole and ſound in the ayre for ſome ſmall time, and afterward put them in their places againe: and then it will be good to ſprinkle them with good and ſtrong vineger, and to annoint them with Wormewood or Sothernewood, and alſo to giue them ayre, making them likewiſe to feele the force of the Sunne, prouided, that the beames thereof doe not touch them: and you muſt looke alſo, that the windowes bee ſo placed, as that the morning ayre may ſeaſon and ſend his breath throughout the whole houſe.

The end of the third Booke.

THE



THE FOVRTH BOOKE OF THE COVNTRIE HOVSE.

That there are two sorts of Medowes.

CHAP. I.

Of Medowes: and their difference.

IN our former Treatise wee hane runne through those things which belong vnto the husbanding and ordering of Gardens and Orchards, and now it requireth, that wee speake of Medow Grounds, vvhereupon consisteth the greatest meanes of feeding and bringing vp of Cattell, to the end wee may perfect and accomplish our fore-appointed purpose. The thing therefore, called in our French tongue *Pré*, may seeme to be borrowed from the old word *Prat*, and both of them to signifie and point out a thing that is readie and prest to doe the Master of the Farme and Farmer seruice, without putting him to anie paines, in respect of the labouring or husbanding of them: but this must be vnderstood of Medowes hauing their prey and maintenance about them; namely, 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 Countrey: as also those about the Riuer called Veselle, which of all others doth most abound in Medowes. It is in like manner in the free and reclaimed grounds 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 medow grounds doe not feare stormes and tempests, as Gardens and other arable grounds doe: but with little cost and charges they yeeld their double reuenue and profit euerie yeare; the one of Hay, the other of Pasture. Medowes are of two sorts: the one drie, the other moist. The drie craueth not the helpe of anie water to be 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 owne accord, and that a great deale better than where it is forced by casting of water vpon it. The moist medowes haue also seldome anie need of watering, because, most commonly, they lye alongst the bankes of some great or small Riuers, which feedeth and nourisheth them: as those which lye here in France, by the Riuers of Marne, Aube, Blondile, and Morin: and in England, by the Riuers of Thames, Trent, Seauerne, Auon, Teame, Ouze, Wye, and such like: and these medowes are, for the most part, plaine and leuell grounds,

because

because the inundations of these Riuers washing them ouer at least once or twice euerie Winter, the Moales, and other filthie vermine, which hurt the earth, are destroyed, and these Medowes are euer more fruitfull and more aboundant in their encrease than the higher Medowes are, but the grasse is nothing neere so sweet and so pleasant, neither feedeth so soundly, nor so suddenly: Whence it commeth, that the husbandman keepeth his high-land hay for his cattell which are to be fed, and his low-ground hay for those which worke.

Chap. II.

What grounds are good for Medowes: and how to make new Medowes.

THe ground that is fat and full of iuice, although it be nothing at all helped either by small Riuer or Brooke, is good to bring forth hay, so that such place be not exceeding farre from some small Brooke, standing water, or little Riuer: or, at the least, that it be moist at the bottome, and such, as wherein, if that one make a reasonable deepe ditch, he may find good store of water: for moisture is one of the nurses of hay. Where such fat and iuice-ground is not, there may Medow ground be made, of what manner of earth soeuer it be, whether it be a strong, slight, or leane earth, so that you haue close by it but this one commoditie of a little Brooke to water it, and that the field lye somewhat sloping or descending, not verie low, nor verie flat, as wherein the raine water, or other of anie small Riuer, taking sometimes ouer the same, doe not vse to dwell and stand anie long time, but passeth and runneth away faire and softly, without anie tarrying. Wherefore I agree and must needs confesse, that some grounds are not so fit and profitable as othersome for the receiuing of Hay-seed, as those which through the neerenesse of some great Flouds, and Pooles, Lakes, and great large Waters, are oftentimes onerflowne and couered with aboundance of water, which in Winter drowneth the grounds: Whereupon it commeth to passe, that the hay is nothing fine or delightsome vnto beasts, but great, and full of stumpie stalks: a broad grasse also, and nothing pleasing their taste. But howsoeuer it is, the hay of standing waters, ill husbanded and corrupted, as also the hay 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 rellish whereof the appetites of Cattell are ouerthrowne, not being accustomed thereunto: besides that, the verie grasse it selfe is more ranke and vnsauourie than the common sort of grasse is, and in taste verie vnlike it.

Salt Marshes. Yet this holdeth not generally: for these low Medowes, and those which border on the Sea, are oftentimes the best of all other, and feed with greater expedition than any other hay whatsoeuer: as witnesseth manie of those salt marishes, which are the most chiefe nurceries and bringers forth of fat cattell that are knowne, and especially Sheepe, which neuer are knowne to rot vpon the same. And of all cattell which feed vpon hay, none is so daintie and choice in its taste, as the Sheepe is: for hee must haue it both sweet, short, and soft: So that by that beast onely it may be seene, that those low Medowes are not euer vnprofitable. And indeed to conclude, there is not any ground which will beare grasse, but by industrie, manure, and much rest, may be brought to beare reasonable good hay, if not to feede, yet to keepe cattell in good plight, and make them goe through with their labours soundly: which is as great a profit to the husbandman as the office of grazing, and more properly belonging to his profession.

Wherefore

Wherefore if you would make new Medowes, make choice of the best ground you can: this ground you shall lay fallow, and let lye idle a whole Summer: then in Autumne after you shall turne vp and plow the same ground, often sowing therein, for the first yeare, Turneps or Nauets, Millet, Beanes, or Oats, and the yeare following with Wheat: then the third yeare you shall labour it diligently, and sow it with Fetches mixt with Hay-seeds: and after this, you shall mow and order it as other old Medowes, as we will declare by and by. *To make new medow grounds.*

Yet for the sowing of these manie Graines so manie yeares one after another, it is not altogether so necessarie: for though it may be vsed in some barren Countries, because Turneps, Nauets, and Fetches are enrichers, and (as it were) manurings of the ground, and the Oates a great breeder of grasse; yet if you onely, when you intend to lay a ground of grasse, doe but the last yeare cast downe the furrowes, and lay the lands as flat as you can, and then onely sow cleane Oates vpon the same, it will be as fully sufficient as all the former labour, and altogether as fruitfull, if the husbandman slacke not his labour herein, but giue it such needfull seconds as the soyle shall require. *Oates a great breeder of grasse.*

Chap. III.

What manner of Husbandrie is required about Medowes.

SVch as obstinately defend and maintaine, that there is not anie paines or labour to be vsed about Medowes, seeme vnto me (vnder correction) void of all sound iudgement: for euerie where, in processe of time, the earth becommeth wearie, and standeth in need to be refreshed in some parts of it, yea, to be sowne againe, and fashioned, if need be, especially in feeding grounds, and Medowes, appointed for pasture for horned beasts: for such cattell as beare Wooll, doe not desire wattie places (as Medowes would be) but being contented with Shepheards, graze along by the wayes, and vpon the plowed grounds. And as for your heards of young Horses and Asses, they feed naturally and commodiously with your other cattell. Yea furthermore, I haue seene in Campaine, as it should be about Pont vpon Seine, a Medow countrey, the Geese and Turkies daily and ordinarily driuen to the pasture, for the sauing 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 breed of Horses and Mares; for the downe, and other feathers of those fowles, as also their dung, would make these sorts of beasts sicke, euen Horse, Mare, Mule, or Asse. *To sow Medowes.*

Besides, according to the opinion of all good husbandmen, these fowles are of all creatures the most preiudiciall that may be, not onely to Medow grounds, but also to all manner of Pasture grounds whatsoeuer: for besides the annoyance which their feathers and downe make, their dung is so poysonous vnto the earth, that it makes it barren, and forceth it to bring forth nothing but Goose-grasse, which is such a sowre and vnwholesome weed, that no beast will touch it, and which, in short space, will ouer-runne a great deale of ground, and make it vtterly vseless: therefore euerie husband must be carefull to keepe these fowles both from his Medowes and his feeding Pastures. *Geese a great enemie to good grounds.*

But whatsoeuer others say or doe, sure I am, that a good Farmer must not neglect his Medow ground, seeing the husbanding of them is a matter more of care than of paine and labour: For the first care must be to keepe it that it grow not with bushes and thornes, or great high stalkes of other hearbes, all which would be pulled vp by the roots in Autumne, or before Winter, as bushes, brambles, and rushes: some other of them in the Spring, as Succories, Hemlocke, and such other weeds, *To weed it and keepe it cleane.*

which are vnprofitable for the feeding of the heards of Horses and Mares. Likewise there must not be left in them anie stones, 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 handsomely in the Winter time, and after that, tilled and turned ouer verie diligently and finely with the plough, and after harrowed, especially that which is leane, and lying with some descent, but not watred otherwise than the raine vseth to water it. It must be dunged also in Ianuarie and Februarie, when the Moone is in the encrease, 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 will doe it more good than the best and purest dung that you can find in your Neat-house. For the making hereof, you must gather in Summer the dust that is by the high wayes most haunted, and mingle the same with the dung of cattell, the filth and sweepings of the house, the dyrt of the streets, the parings of the house, and the great and little Court, the dung of Hennes 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 pierced with the frost, be sufficiently ripened. This mixture when it is spread, entreth better below into the earth than dung alone, and also incorporateth it selfe better with the earth. But aboue all, there is no dung more excellent for Medow grounds, than the rotten staddell or bottomes of Hay-mowes, or Hay-stackes, which, putrified with the moisture of the earth, lookes mouldie blacke, and most filthie; and with this, if you mixe the sweepings of the Hay-barne floore, and the scattered seedes which fall from the Hay when it is shaked vp or bound into bottles, it will be a great deale the better, and the earth will put forth his encrease in much more plentie. These Medow grounds must also be verie well drained from water, if they be subiect thereunto, and sluces and draines made either by plough, spade, or other instrument, which may conuey it from one sluce to another, till it fall into some ditch or riuer: for as the sudden washing of the earth fatteneth and enricheth the same, by reason of the mud, slime, and other fat substances which it leaueth behind it; so the long abiding of the water vpon it, scalds the soyle, rots the roots of the grasse, and either makes it vtterly barren, or conuerts it to a bogge-myre: Nay, where the water lyes long vpon the ground, there it will turne the grasse to reed, rushes, or other vnprofitable weeds: therefore by all meanes preuent the continuance of flouds, and onely esteeme of a gentle washing, and no more. Againe, in your Medow grounds you must be exceeding carefull to know the goodnesse or badnesse of the same: as, which is fruitfull, which barren, which quicke of growth, which slow, which will beare but one entire crop, and which two, and accordingly you must lay them, that is, giue them time of rest for growth; as thus: If your ground be verie fruitfull and rich, yet through the coldnesse of the clyme will not beare aboue one crop, it shall not be needfull for you to lay it before May day: but if it be but of a reasonable fruitfulnesse, then you may lay it at the Annuntiation of our Ladie: but if it be verie hard and barren, then it is best to lay it at Candlemas, that it may haue the vttermost of the Spring & Summer to grow in: also, if it be exceeding fertile, and so warme and close couched, that it will beare two croppes, then you shall lay it at Candlemas, that you may cut it at the end of May and the midst of September; for to cut it after that time, is both ill husbandrie, and profitlesse: for howsoeuer men may be opinioned, either through custome, or the imitation of their neighbors, yet they shall find it most certaine, that the hay, how good soeuer the growth be, yet if it want the Sunne and kindly withering, it can neuer be good either to feed or sustaine nature with: but hauing the iuice rotting and not dried within it, becommeth black, vnpleasant, and vnwholesome, insomuch, that the worst straw is better than the best of such hay: therefore let euerie husbandman haue a great care to the good and kindly withering of his hay, and esteeme euer the qualitie before the quantitie. After Medowes are laid, then the husbandman shall haue a great care to his fences, least either his owne, or other mens cattell, by day or night breake into the same, for they may doe

To gather out the stones.

To harrow it.

The manuring of it.

Bottomes of Hay-mowes.

Sluces and Draines.

doe him more iniurie in an houre than they can doe him profit in a moneth: for the young and tender grasse, if it be nipt or bitten at the first springing, hardly after prospereth, till the sythe haue cut it: for it is with grasse as with stronger plants, which if they be nipt or bitten, forthwith loose the beautie of their flourishing, and groweth not straight or vpright, but low, crooked, and ill-fauoredly, neither so fast as before it did, but verie slowly, and manie times without seed: therefore by all meanes preuent the cropping of your Medowes by catrell at their first springing. Also, if you haue anie riuers, ditches, or small rundles, which butt vpon your Medowes, you shall at such time as you lay your Medowes, be sure to cleanse and scoure them both of weeds, mudde, and other filth, that shall anie way cloy or fill them, that the water may thereby haue a more free passage and a larger receit to receiue and conuey away anie floud which shall happen: for after your Medowes begin to grow, if anie floud shall come vpon them, the sand and other filth will fasten to the rootes, and lye vpon the grasse in such manner, that not being able to be cleansed by anie husbandrie, it will make the hay vtterly vnwholesome, so that lying in the stomacks of the beasts, it will engender manie mortall and pestilent diseases. And herein is also to be noted, that the mudde and other compasse which you shall take out of these riuers or ditches, would be spread vpon the Medowes, and when it is drie, with small clotting maules be beaten as small as dust; for this is also an excellent maner of manuring your Medowes.

Chap. IIII.

What must be sowne in the Medowes.

THe way then to reforme the old and drie consumed places of your Medow, if they be become hoarie & rotten, must be by sowing them in the Spring with good Hay-seed, which is the Medow Clauer, which is called in some places Sops in wine, by reason of the flower, which is an hearb which men in times past made great account of, sowing it by it selfe as the Fetch is wont to be sowne, and they did sow it in Ianuarie, as *Cato* and *Palladius* doe report. The maner of sowing it shal be set downe in the fifth Booke, in the handling of Pulse. Likewise the seed of Gallion or petty Mugguet, wild Fetch, and Hauer-grasse, which the Latine Poet calleth properly barren Oates. Againe, the small wild Mallow is not amisse, neither the little Crowfoot, foreseene it be not that with the bulbous root, that is to say, the Crowfoot hauing a round root like an Onion, because that is venimous for the beast, but it must be that Crowfoot which hath a hairie and threadie root. The two-fold 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, herein differing from the Satyrion, which is more cut & 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, called Birds-toong. The wild Carret, especially that, which in the midst of the white flower, in the round broad tuft, beareth a sweet smelling seed; being rubd in the hand, like vnto graines of Paradise, & of the same colour: as likewise wild Wound-wort (which *Dioscorides* calleth *Hercules* his wound-wort) is very good, foreseene that it grow not too great. Germander likewise is good, being called of the Grecians small Oake, by reason of the figure of the leafe. Little Rampions likewise is very good, because of the root, which helpeth forth Lent sallads as wel as the Cresses: wild Saffron is not good, because of his flower, seeing both the root and it doe kill beasts, euen as Hemlock doth, which is called Birds-bane: neither yet water Pepper, as being venimous through his heat, and vsing to grow only in standing & stinking waters, as laughing Smallage doth, called *Herba Sardonica*, because it maketh men and beasts to seeme to laugh when it killeth them: in like maner, wild Woad, Bucks-beard, Hartstong, wild & low growing All-good, both sorts of Violets, the lesse Centaurie, all the three sorts of Daisies, and especially those which are called Gold-cups, or little Crow-

To sow medowes.
Sops in wine, or Snaile-clauer.
Cato.
Palladius.
Plantaine.
Wild carret.
Wound-wort.
Germander.
Small Rampions.
Wild Saffron.
Laughing Smallage.

foot, and the three-leaued grasse of the Medowes, are all of them singular good hearbes for the fruitfulnesse of the Medow ground. The Garlicke, 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 than the true and small water Germander, which is often found in the Medowes of Cheles, and elsewhere: but great store of it maketh the hay to smell ill: as on the contrarie, Penyryall maketh it smell sweet, and so likewise, Organie of both sorts, the three sorts of Balme, and Costmarie: but Mints, and that Hore-hound, which is wild Camomile, are nothing worth. Great quantitie and store of wild Fetch causeth the hay to be verie full of nourishment for cattell: the lesse Plantaine, Siluer-grasse of both sorts, Peachwort (so called, because it carrieth a flower like a Peach-tree) and Burnet: the three sorts of Shepheards needles, called of the ancient Writers Storks-bills (by reason of the fashion of the peake that followeth in place after the flower) whereof hearbe *Robert* is one, doe verie well for cattell, and cure them of the grauell, causing them to make their vrine in abundance. Millefoile and Prunell (called the Carpenters hearbe, because it is good for cuts) are also good, and verie sweet of smell: but Quitch-grasse (called Dogs-grasse) doth destroy the Medow as much as Balme doth mend it, and encreaseth milke in Kine, as great Hares-foot doth in Goats, and in like manner as Veruaine and Groundswell are good hearbes for Conies. Looke well, that Thistles set not their foot within your Medow, except it be the blessed Thistle, with the yellow flower, or else the little Thistle, and that but about the borders or edges of the Medow, and that it haue the leaues of Sow-thistle, though it be 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 wayes, and amongst Vines, as doe also the Bindweed and Nightshade. Flax-weed, 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 verie hot and shrewd fellowes. Melilot the small and the great, Myrrhis, which hath leaues like Fennell, and diuers diuided white flowers, is of great vertue, and sweet, after the smell of Myrrhe. To be short, the Carret and Cheruile doe serue greatly for the nourishing and goodnesse of the hay. But aboue all, there is no hearbe nor seed more excellent to be nourished or sowne in the Medowes, than Saxifrage is: for amongst all huswiues it is held an infallible rule, That where Saxifrage growes, there you shall neuer haue ill Cheese or Butter, especially Cheese. Whence it commeth, that the Netherlands abound much in that commoditie, and only (as is supposed) through the plentie of that hearb only. And for the better affirmation or proofe thereof, you shall vnderstand, that all good huswiues, which will carrie any reputation for good Cheese making, doe euer dresse their chesslep-bags and earning with Saxifrage, as the only hearbe that giueth a most perfit season to the same.

Great and small water Germander in the Medowes of Cheles.

Carpenters wort-balme.

Blessed thistle.

Pimpernell.

Saxifrage a great friend to Medowes.

Now albeit I haue here deliuered you a particular collection of the seeds of all those hearbs which are most necessarie to be sowne in Medows, yet I would not aduise you to be so curious as to bestow your labour in culling these seeds from the rest, or to sow them in your Medows with that care and respect that you sow seeds in your Garden; for lesse paines will serue: only I would wish you, when you intend to sow your Medowes (which would be either in the Spring, or in Autumne) to goe (if you be vnprouided) to such a neighbor or Farmer neere vnto you, as is owner of some fine and delicate piece of Medow, void of grosse & filthie weeds, stump-grasse, knot-grasse, peny-grasse, speare-grasse, or Burnet, and from him you shal buy the sweepings or scattrings of his Hay-barne floore, as also those sweepings which shall be vnder those windows or holes, in at which the husbandman putteth hay when he vnloads it, and these sweepings you shal sow vpon your Medows as thick as you can strew them, for the thicker is euer the better: and you must foresee, that when you thus sow your Medowes, you cause your ground to be as bare eaten before as is possible, especially with Sheepe, because

Sweepings of Hay-barne floores.

becauſe as they bite the neereſt of all cattell to the ground, ſo they beſtow vpon it their manure, or dung, which is the fatteſt and moſt fruitfulleſt of all other, and maketh the ſeeds inſtantly to ſprout after the firſt ſhower. You ſhall alſo obſerue when you ſow your Medowes (whether it be at the Spring, or at the fall) to ſee and if the dung of the cattell which laſt grazed vpon the ſame, lye vpon it ſtill in heapes, as when it fell from their bodies: and this dung you ſhall raiſe from the ground, and with beetles made for the purpoſe, beat them into verie ſmall pieces, and ſo ſpread them generally ouer the whole Medow, and then ſow your ſeeds amongſt them, for by this meanes your ſeeds will quickly take root.

There is alſo another way of enriching of Medowes, eſpecially ſuch as lye high, and out of the dangers of flouds, which for the moſt part are euer the barrenneſt; and that is by the foddering or feeding of cattell vpon the ſame in the Winter ſeaſon, as thus: The husbandman ſhall in the barrenneſt part of his Medow ground, which is ſafeſt from waters or flouds, make vp his hay in a large and handſome Stacke, or Reeke, either round or ſquare, according to his pleaſure, or the quantitie of the hay: and this Stacke thus made, he ſhall fence about with thorne, or other hedge-ware, to keepe cattell from tearing or ſpoyling the ſame, till ſuch time as the Farmer himſelfe ſhall thinke it meet to cut downe the ſame: Then when the extremitie of Winter ſhall come, as either when the graſſe is cleane conſumed, or that by reaſon of long Froſts or Snowes your cattell cannot come by anie food, then is the time to cut downe your Hay-reekes, and to fodder your cattell therewith morning and euening, cutting no more downe at a time than ſhall conueniently ſerue to fodder your cattell; for ſpoyle herein is the vildeſt husbandrie that can be. This hay thus cut downe, you ſhall not lay in one place, but in diuers places of your ground, in little tufts or hillockes, ſcattering an armefull thereof in manie places: becauſe, if you ſhould lay it in one place, or in a verie ſmall circuit neere together, your cattell would diſagree and offer to gore one another, at leaſt, the ſtronger cattell would euer beat away the weaker, and ſo rob them of their food: whereas being ſcattered into diuers remote places, thoſe which are beaten away from one place, will goe to another, and ſo take their food without trouble: in which, you ſhall euer obſerue to lay more tufts or heapes of hay than you haue cattell. Neither yet doe I meane, that this manner of foddering ſhall ouer-ſpread anie great piece of ground at one time, but according to the number of your cattell, be cloſe packed together, both for the eaſe of the fodderer, and for the well husbanding of the hay, which to be carried vp and downe too farre, would make much waſt by ſcattering; ſo that to lay one foddering within two or three yards of another, is ſufficient. And this I ſpeake of great cattell, as Oxen, Kyne, Steeres, Horſes, or ſuch like: for if you fodder Sheepe, then you muſt lay your hay in long rowes, one row three or foure yards from another, vpon the drieſt and cleaneſt ground you can find, becauſe the trampling and treading of the cattell will elſe make much ſpoyle of the hay. And herein is alſo to be noted, that you muſt not by any meanes lay your fodder aboue twice in one place, but change and alter your ground, finding out ſtill a drie and vntrodden place to fodder in, as well for keeping the ground from two much foyling and tearing vp with the feet of cattell, as alſo for the ſauing of the hay, which would be halfe loſt, if it ſhould be layd in wet and myrie places. And thus you may in one Winter runne ouer a great piece of ground, and not onely ſow it plenteouſly with the Hay-ſeedes which will fall from the Hay in the carrying, but alſo manure the ground excellently, by this drawing together of your beaſts into one place, making their leare, and dunging moſt thereupon. Now ſome will ſay, that this manner of enriching of grounds carrieth with it a diſcommoditie which equalleth the goodneſſe which is reaped from it, and therefore not ſo much to be eſteemed; alledging, that the trampling of the cattell teareth vp the greene-ſwarth, and (as it were) ploweth vp the ground in ſuch ſort, that it will hardly beare any good croppe of graſſe a yeare or two after. To which I anſwere, that if it doe (as happily it will) teare vp or digge the ground ſo, that you loſe the next yeares croppe in ſome part: yet, after the firſt yeare is paſt, the

Foddering of great cattell.

Foddering of Sheepe.

Commoditie of foddering.

ſecond will double, and the third will treble anie encreaſe formerly receiued from the ſame ground; neither will the goodneſſe euer after be abated from the ſame: beſides, if your ground be ſubiect to anie filthie ſoft moſſe, or fuzzie graſſe, which is both vnſauourie and vnwholeſome for beaſts, and alſo choaketh and deuoureth vp all better herbage; this treading of the cattels feet will vtterly kill it, and make the ground fruitfull for euer after. Nay, if the ground haue beene much ſubiect to ſmall whynnes, or prick-graſſe, which is a moſt venimous weed in anie ground, according to the opinion of the beſt husbands, this courſe onely will deſtroy it. To conclude, the Medow well kept and maintained, doth alwaies bring double commoditie, to that which is ill gouerned and husbanded.

Chap. V.

Of the harrowing, watering, and keeping cloſe and well defenſed the Medow ground.

BEſides the ſeedes of good hearbes, which is verie requiſite for the Medowes, yet there are other workes needfull for the goodneſſe of Hay: for the Medowes muſt be harrowed and raked preſently after they be ſowne, to breake the clods into ſmall earth, or duſt, that ſo the mowers may not thereby hurt their Sythes. If the ground of the Medow be withered, and drie, it will be a maruellous commoditie vnto it, to draw into it, all the Winter long, at the leaſt, ſome ſmall Brooke, for the watering and moiſtening of it, ſeeing that moiſture is the naturall nouriſhment of Hay; and this would be done eſpecially during the moneths of Nouember, December, Ianuarie, and Februarie: afterward, when the earth hath drunke her fill, then ſtop the way whereby the water of the Brooke runneth. It is true, that if the Medow-plot lye 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 verie ſufficiently, being ioyned with the iuice and goodneſſe of the dung which you ſhall haue beſtowed in the higher places. Neither ſhall it be needfull to water the ground much, where there is great quantitie of three-leaued graſſe, becauſe then it would die by and by. Againe, you muſt not cauſe anie water to ouerflow anie old Medow grounds, in the time of great and exceſſiue cold, except it ſhould be that they ſhould continue a long time: becauſe that the water fayling, the ground thus boyled againe, and drenched, would be verie much annoyed by the vehemence of the froſt and yce. Likewiſe, if there be anie mariſh or dead water in anie part of your Medow, you muſt cauſe the ſame to runne and drayne out by ſome Conduits or Trenches: for without all peraduenture, the ſuper-aboundance of water doth as much harme, as the want, ſcarcitie, or lacke of the ſame. You muſt be ſure alſo to keepe Swine out of your Medowes, becauſe they are alwaies turning it ouer with their ſnouts, and rayſing great ſoddes of earth: Neither muſt you admit anie great Cattell into them, ſaue when they be verie drie, becauſe the hornie hooſe doth ſinke into the earth, and either breake off the graſſe, or cut in ſunder the rootes, whereupon they cannot ſpring or multiplie anie more.

CHAP. VI.

To mowe your Meadowes againe and againe, to gather the Hay and refresh your Meadowes, and to bring your barren Meadowes into Tillage.

NOw for the mowing of your Meadowes, it must be according to their growth or ripenesse, for some ripen soone, and some late, and sure there cannot fall to the Husbandman greater losse than to cut his Meadow before it be ripe, for then the sap or moisture not being come fully out of the roote, the grasse in the vvithering shrinketh away, and falls to nothing but a soft fuzzie and vnwholesome substance which no cattell will eat; and also to let it stand till it be ripe, or that it haue shed it seed, is as ill husbandrie, for then vvill the juice be too much dried out of the stalke, and that substance which should giue nourishment to your cattell, will be lost. Therefore to know when your grasse is truely fit to be cut, you shall looke carefully vpon it, and vvhen you see the tops thereof looke browne, and the cocke heads, bells, or bottells which beare the seeds, not stand vpright, or looke direct into the heauens, but bend their heads downeward as looking backe into the earth, then you may be certainely assured it is a fit and good time to cut it, for the earth hath giuen it all the due it ought to haue, and this will be (if it be in a most fertile and verie rich soyle, such as may be cut twice in the yeare) at the beginning of Iune, or about a vveeke before Midsommer: But if it be in a reasonable ground, which hath the title of a good earth onely, then it will be about the translation of S. *Thomas*, which is the third of Iulie: but if the ground be extreame cold, moist, and barren, then it vvill be after Lammasse, and sometimes in the middest of September. Now for the generall cutting or mowing of Haye, it would euer be done in the new of the Moone, and at such time as the vveather by all conjectures is cleare, constant, and likely to continue faire. As soone as your Haye is mowne, if there be plentie of grasse, and that you see it lye thicke in the swaches, so as the Ayre or Sunne cannot passe freely through it, then you shall cause certaine with forkes to follow the sythes, and as they mow it, so to cast it abroad thin, whereby the Sunne may vvither it, and this is called tedding of hay: The next day after the dew is taken from the ground, you shall turne it, and let it vvither on the other side; then handling it, and finding it to your feeling fully drie, the next day you shall with forkes and rakes draw it together in great quantitie into long rows, which rows you must draw in that way which the wind blowes most, least drawing it in the contrarie way, the vvind scatter it abroad, and loose both your labour and profit, for these rowes are called Wind-rowes; and as soone as it is thus gathered together, you shall forthwith thrust the haye close vp together, and make those Wind-rowes into good bigge handsome cockes sharpe at the top, and broad at the bottome, such as six or seuen of them may make a Waine-load; for howsoeuer sloth or weakenesse may say that little cockes, because they aske little labour, are best, yet it is certaine that the great cockes are much better, and keepe the haye safer from vvet, if any shal fall, and also makes it sweat, and haye a great deale more kindly: in these cockes you shal let your haye stand a day at least, if more it is not amisse, and then breake them open againe, and let them lye in the Sunne till it haue dried vp all the sweat and moisture that was in them; vvhich done, you shall load it according to the maner of the soyle wherein you liue, and so carrie it to the barne, or elswhere according to your pleasure. Now this manner of making of haye you must vnderstand is for such as is most fine, cleane, and the purest grasse, without vveeds, stumpes, thicke leaues, or other grosse substances, for if you find your grasse to be of that rough nature (as for the most part all your vvood-land-grasse is) or that it is much intermixt with burnet, peny-grasse,

Mowing of meadowes.

Best time to cut grasse.

Wind-rowes.

Great hay-cockes.

graſſe, and other thicke leafed weeds, then you ſhall giue it double withering, and after you haue mowed it, and tedded it, you ſhall turne it twice or thrice ere you cocke it, then being put into drie cocke, you ſhall breake it open in the morning, and make it vp into drie cocke againe at night, three or foure daies together before you load it, and be ſure that in the cocke it take a verie good ſweat, and then carrie it home and ſtacke it vp as ſhall pleaſe you beſt. But if your ground be extreame barren, cold, moiſt, and full of verie ſowre and ſtubborne graſſe, and of that alſo but little plentie being thin, ſhort, and hard in the cutting, then you ſhall not need to ted that hay at all, but in ſteed of that labour, you ſhall (as it is mowne) with your forke make it into thicke little graſſe-cockes, as bigge as prettie little moale-hills: the reaſon whereof is this, That ſuch ſowre and harſh graſſe being exceeding ſlow of growth, muſt neceſſarilie be verie late in the yeare before it can be ripe, or readie to be cut, whereby wanting the kindlie heat and ſtrength of the Sunne, it cannot but with great difficultie vvither vvell: vvherefore you muſt adde vnto it all the art which you may to bring it to good haye, which this caſting it into little heapes and cockes will doe, for the graſſe ſo layed together will heat of it ſelfe, and then being often turned and toſt that the ayre may goe through it and drie it, and then made into cockes againe euerie day bigger and bigger, vvill in the end by it owne heat come to as kindly hay as if it had the full benefit of the Sunne. And herein you ſhall obſerue, that as at firſt you make them into ſmall cockes, ſo the ſecond day you ſhall make them into bigger by putting two or three of thoſe cockes into one, and the next day you ſhall put two or three of thoſe bigger cockes into one, euerie day increaſing the bigneſſe of the cockes as you find them to vvither, till you bring them to ſo great cockes that three or foure of them will make a Waine-load, and in that eſtate you ſhall let them ſtand foure or fiue daies before you load them: but vvhileſt they are in the little cockes, you ſhall breake them open once or twice a day at leaſt, according to the faireneſſe of the vveather; for you muſt vnderſtand, that whileſt they are in graſſe or vnwithered cockes, if you let them lie too long, the graſſe will turne yellow, and begin to putrifie, vvhich often ſtirring vvill preuent. Laſtly, touching the making of hay, you muſt vnderſtand that the greateſt enemie it hath, is wet, or raine, and therefore you muſt be carefull to make it vp in the drieſt and faireſt weather you can; and if any raine ſhall happen to fall on it, not to turne it till the vpper ſide be drie; for to turne the wet graſſe to the wet earth, is the readie way to make it rot.

Sowre and harſh graſſe.

choyce and vſe of haye.

Now to ſpeake a little touching the choyce and vſe of your haye, you ſhall vnderſtand, that the haye which is moſt long, loggie, and of greateſt burthen, is beſt for horſes, being verie drie, ſweet, and got in a good ſeaſon: that vvhich is not verie long of growth, but verie pleaſant and cleane graſſe, without weeds, hard ſtumpes, pricks, or ſuch like, is beſt for milch-kine, or ſtall-fed-oxen; onely that which you preſerue for your Kine, would be got verie drie, and haue all the ſweetneſſe and pleaſantneſſe that may be: but that you keepe for your feeding-cattell would not be altogether throughly vvithered, but got a little greeniſh, ſo as it may take ſuch a heat in the mowe, as may onely diſcolour it and turne it red, but no more; for that will bring a thirſt vnto the cattell, and make them drinke vvell: and the Graſier is of this opinion, that cattell neuer feed well till they drinke well, and that haye which is the fineſt and ſhorteſt, growing vpon high and drie grounds full of flowers and ſweet plants, is beſt for your ſheepe, or young calues, and this muſt be got verie drie, and (as neere as you can) vtterly without any raine; for when it is ſo drie that it will hardly lye vpon the Waine, then is it the beſt of all: for when the husbandman faith that moiſt haye is profitable for the increaſe of milke, he doth not meane that you ſhall get in your haye greene, or any part vnwithered, for that brings it to a rottenneſſe or ouer-drineſſe, which is verie ill for milke; but you ſhall get it into the barne as drie as you can, without ſcorching, ſcalding, or ſuch vnnaturall extremities, and this hay taking his kindly ſweat in the mowe, is that which is called the Moiſt-hay, and that which taketh a little too much heat in the mowe, and altereth colour, is the Drie-hay, and keepeth your fat cattell from gripings and other painefull griefes in their bellies,

Moiſt-hay. Drie-hay.

to

to which they are euermore verie much subject. It is an vse with some husbandmen (as well in our France as in other countries) after they haue brought their haye into drie cocke, to put it into great stoukes or pettie stackes without doores, and so to let it remaine a fortnight or more that it may take the full sweat before it be brought to the barne, or hay-loft: but it is a needlesse and a double labour, and may verie well be spared, if the orders be obserued before prescribed; for this much curiositie did but spring from a fearefulnesse of ouer-heating, or mow-burning, which to preuent, the Ancients spared not any labour. Nay they were so curious in the first times, that they would not suffer their haye by any meanes to lye neere to the sinke or smell of the beast-house, or vvhere any other noysome sauours were, supposing that the haye would naturally of it owne inclination draw all such corruptions vnto it; but it was a feare might haue verie vvell beene spared. Now touching the later crop of haye which is euer to be mowne in the moneth of September, you shall in all respects vse it like the hay of these barren grounds last written of, for the yere time being so much shot on, it can haue no other kindly withering, neither is it to be vsed for the feeding of fat cattell, or for milch Kine, but onely for drie beasts, or such as onely labor, as the oxe, horse, mule, or asse. *Curiositie.*

If by the gathering of your hay you perceiue your meadowes to become barren, vvhether it happen by your negligence in not hauing beene carefull ynough in husbanding of them: or by reason of age, seeing the earth will sometime rest it selfe as being vvearie, for the recouering of the strength againe, as it is onely seene in barren soyles, and no other; for that which is truely fertile and good ground, will neuer be wearie of bearing, especially if it lie low, and be gentlie washt with waters; but that which lies high or violently against the heat of the Sun, will many times decay in his aboundance, which when you shall at any time perceiue, it shall be good to forbeare the cutting of it the next yeare, and onely graze it with cattell, especially sheepe, vvhich vvill be as good as a manuring vnto it, and make it beare grasse in as good plentie as euer it did afore: for often cutting occasioneth barrennesse, and often feeding breedes increase. But if it be through the naturall fertilitie and hardnesse of the ground that it waxeth barren, then you shall vse the like meanes, that you vvould in making of new meadows; 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 meadows, set downe with your selfe to reduce them into arable ground, especially those which are drie, parched, bringing forth verie 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 fadome 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 heat of the Sunne, fit them one to another, and lay one vpon another, in manner 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 spead the ashes thereof equally 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 vvith millet, afterward with rie, and in the end with mastling and wheat. *Grazing with cattell.*

CHAP.

Chap. VII.

Of the Ozier-plot.

REmember this, that three things carefully kept and increased by the diligence of the vvorkeman, doe make rich vvithout any great trauell, that is to say, the meadow-grounds, the Ozier-plot, and the Willow-plot, vvhich by the meanes of vvater lightly slyding through the veines of the earth in the fat and vvell liking places that are vpon the sides of hills, and by the vvatering of manifold streames round about, doe naturally grow euerie yeare, and yeeld great profit vnto their maister, for the feeding of his cattell, the making of hoopes for vessell, and binding of them, as also for fewell, the benefit of poles, woodden vessells, 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, vvhich vve do not dreame to haue any other assigned place, than about the meadows, and far remoued from the arable ground; in as much as their shadow is so hurtfull to wheat, line, pulse, and other graine, as that they neuer grow vvell where they are ouershadowed by these: but on the contrarie, meadow grounds receiue great profit thereby: as well because that grasse doth grow the fairer and more pleasantly in the shadow, than vvhere 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 old Writers call Sea-willow, or Wicker-tree, that is to say, apt to bend) desireth not to come verie neere to the water, but loueth rather to stand vpon the descending side of the valley, and the Ozier-plot would end at the sides of the Willow-plot: the Ozier-plot must be pricke with a line, and prettie small ditches drawne out in it betwixt two lines, and euerie slip must be set one from another about fiue foote and a halfe, to giue them their spreading. It vvill not abide the shadow of any tree, but loueth much to haue the fruition of the South-Sunne. The tame red Ozier requireth great husbanding, and is afraid of frosts, and the showres of raine that fall in March, and verie cold vvater: the vvhite and the greene Ozier, vvhich neither bend nor yet defend themselues so well, are of a harder nature, and grow higher. It vvill be good to pricke downe moe of the tame ones than of the other, and alwaies to set them out of the shadow, and there must be but a little water at their foot, the most part of the time: vvherefore you must make furrowes by the vway, to keepe and reserue water. It must be dressed twice in a yeare to make it grow vvell, that is to say, about mid-May, and towards the end of Nouember, presently after that it is gathered, being also the time of planting of it.

It is verie delightsome vnto it to haue the earth raised vvith the spade and stirred, and to cast in again the clods vnto the foot some fifteen 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 thicknesse of a fadome, fresh & coole in some cellar or caue, and if the season be drie, to vvater them throughout now and then: some slip off the leaues in gathering of them, thereof to make good ashes: others let the leaues fall of themselues, and after gather them for the houshold, and in Winter-nights 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 maister-twig to stand vvhole for fiue or sixe yeares, 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.

Chap. VIII.

Of the Willow-plot.

SOme say, that the Willow-plot craueth the like husbandrie that the Ozier-plot, because the Willow differeth onely from the Ozier in vse, bigness, 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 vvhatsoeuer it is, the Willow loueth vvaterie places, and is planted of the tops cut off, or else of poles: the poles are taken from aboue, of a good thicknesse, but notwithstanding not thicker than 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 foot 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 vvet when it is cut: therefore you must shun rainie dates 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, vvhen as the heart of the great cold is broken, vvhich oftentimes hurteth this plant when it is newlie planted: It is true that it may be planted at any time after the beginning of Nouember, yea it may be then both planted and gathered. The plants shall euerie one stand from another sixe foot square, and they must be carefully husbanded for the first three yeres, as if they were yong vines. You shall find a larger discourse of the Willow-tree in the sixth Booke. The distilled vvater of Willowes is good to be drunke for the staying of all sorts of fluxes of bloud: the decoction of the leaues or the lee made of the ashes of the vvood beeing drunke, doth kill bloud-suckers vvhich hang in the throat.

Chap. IX.

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 vve haue giuen in charge to euery housholder to plant a plot of elmes, at the end of his orchard, as vvell to make fagots of, as to make vvheeles and axle-trees of for his carts and ploughes, as also for fire-wood and other easements, besides the pleasure that the Elme-tree affordeth all the Sommer long. For the planting then of your Elme-plot, make choyce of a fat peece of ground, and vvithall somewhat moist (although this Tree be easie to grow in any kind of ground) vvhich you shall digge 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 sow it verie thicke vvith the seed of elmes, vvhich shall by this time become little red, hauing beene a long time in the Sunne, and yet notwithstanding retayning his naturall substance and moisture: and you shall sow it so thicke as that all the earth shall be couered vvith it, then cast of fine mould vpon it, good two fingers thicke, and vvater it a little, and couer the earth vvith straw or broken boughes and braunches, to the end that vvhat shall come out of the earth may not be deuoured of birds. And vvhen the sences shall begin to shew, take away the straw and boughes, and pull vp the bad vveeds verie care-

The vine married vnto the Elme.

carefully vvith your hands, in ſuch ſort as that the ſmall rootes of the elmes vvhich as yet are tender, be not pluckt vp therewithall. The waies and ſquares muſt be ſo diſcreetly caſt, as that he which is to weed them may eaſily reach to the middeſt of them euerie vvay. For if they vvere too broad, then he ſhould be conſtrained in pulling vp the vveeds to tread the earth vvith his feet, by which meanes the ſhoots might be hurt. After vvhen the branches are put vp ſome three foot 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 yeares paſſed, they muſt be tranſplanted and that after Autumne, vvhen as the earth beginneth to be moiſt vntill the beginning of the Spring, as being the time when the roote may be drawne without leauing of the barke behind: you may plant an elme at euerie fortie foots end, and not touch them at all for two yeares after: vvhich being paſſed, you muſt dig the earth all about the bodie of the Tree, pruning and picking it with a ſmall handbill, euerie two yeares. We will not make any 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 ſoyle it doth principally delight to grow.

Chap. X.

Of the Aller.

WE ſee that the Aller or Alder-tree is no leſſe profitable for the Husbandman, than the Elme, in as much as the wood of Aller doth ſerue to make many implements & working tooles, as ladders, railes for the cart, poles, handles for tooles, rackes for horſe-meat, and ſuch other things, to lay the foundations of buildings vpon, which are laid in the riuers, fens, or other ſtanding vvaters, becauſe it neuer rotteth in the vvater, but laſteth as it vvere for euer, and beareth vp maruailous ſtrange and huge maſſes.

The Aller therefore ſhall be planted neere ſome little brooke, in ſome moiſt and vvateriſh meadowes: for the Aller-tree naturally delighteth in vvater more than any other tree doth, and it looketh that the moſt part of his roots ſhould be in and lower than the vvater, for elſe it will not come to any growth. The aller is not ſown becauſe it beareth no ſeed, fruit, or flowers: yet it may be planted two vvaies, either of braunches taken from the great trees, or elſe of liue rootes drawne out of moiſt places their earth vvith them, and ſo ſet in another moiſt place, and that in ſuch ſort, as that at the leaſt the one halfe of the roots may be lower than the vvater, and couered aboue with earth a fingers thickneſſe: and vvithall, before it be planted, you muſt cut the ſmall branches away till within a finger of the maine root, vvhich afterward will ſhoot vp many ſmall ſiences. This tree is eaſie to take and grow againe in moiſt places, becauſe it hath much pith in it, and putteth forth much wood in a ſhort time. You may make your aller to grow high in any place without any great labour, and to ſmall profit becauſe it would need continuall watering. It is better then that your aller ſtand in 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 doe ſtay inflammations: being put vnder the naked ſoles of the feet, they greatly take away their wearisomeneſſe, which by far walking haue wearied themſelues: full and all moiſt with the morning dew, being ſpred in Sommer all ouer a chamber, they kill fleas. The barke ſerueth to make inke, and to die leather blacke.

Chap.

The Poole, Fish-pond, and Ditch for Fish.

Chap. XI.

Of the manner of making Stewes and Pooles for keeping of Fishes.

THe chiefe and principall point of a good Countrey Farme, is to want nothing, either needfull for the prouision of the chiefe Lord, or auaileable for the profit that may come thereof. The good householder then shall not esteeme a little of Fish, seeing that of them he may make both prouision for his table, and great gaine vnto 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 find victuals therein both for himselfe and his familie, and that as readie, as if it were alreadie in the Kitchin: besides what he may yearely sell of that his store to make money into his purse.

Therefore for the appointing out of ground for these his Pooles or Stewes to breed or feed his fish in, he shall chuse it ioyning vnto his Medowes, in some leane place, and such as he could otherwise make no profit of, and yet it must be in a firme ground, that is grauellie or sandie, for such places doe feed fishes excellent well: notwithstanding, that the muddie and dyrtie 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 marvellously well seated, if the commodiousnesse of the place will affoord it continuall refreshment from some flowing Fountaine, or some Brooke, or little Riuer falling into it, whereby continually the first water may be remoued, and new supplyed in place thereof, not suffering the other to stand 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 meanes the water is renewed the more easily, and the fish therein made the more chearefull and better thriuing to euerie bodies sight: whereas on the contrarie, the standing and corrupted water affoordeth them nothing but bad nourishment, making the flesh thereof of an ill tast, and vnpleasant in eating. In the meane time you must not forget to set grates of Brasse or yron close fastened, and pierced but with small holes in the conduits, that so by them the water may find one passage in, and another out, and yet to stay the fish for getting forth. It will be good that the Poole be large and great, to the end, that the fish which is kept therein may find 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 find place for to hide it selfe, and to auoid the great heat of the Summer: prouided notwithstanding, that they be so made, as that the water which is in them may easily get out againe. *The situation of the Pooles.*

These Fish-ponds also may be made in anie low Valley, which the hills enuironing on euerie side, send downe their waters into the same, making it continually wet: so that (in truth) without it be applyed to this purpose, it will serue for no other good purpose. In this place, aboue all other, you shall make your Fish-pond, drayning it at the dryest time of the yeare, and digging it of such depth as you shall thinke most conuenient for the receit of such water as shall fall into it: then noting how the water descendeth, you shall iust against that descent make the head of your Pond, mounting it of such a height, that no land-water whatsoeuer may *To make a Fish-pond.*

ouerflow it, and this head you ſhall make in this wiſe: firſt, ſo ſoone as you haue drained the ground, and made the earth firme where the head muſt be, you ſhall driue in foure or fiue rowes of piles made of Elme, and ſome of Oake halfe burnt or ſcortcht, and then the earth which you digge out of the pond, together with fagots and bundells of wood, you ſhall ram in hard betweene the pile, till you haue couered them, then you ſhall driue in more piles, and ram them likewiſe as before, heaping thus pile vpon pile, and earth vpon earth, till you haue made the head of that conuenient height which you did deſire, and if in the middeſt of this head you preſerue a conuenient place for a ſluce or ſloud-gate, which you may draw vp and ſhut at your pleaſure, it will be a great deale the better: and on the top of the head you ſhall make a ſmall ſluce or two vvith fiue grates in them, to ſtay the Fiſh from paſſing through the ſame, vvhich ſluces ſhall conuay the vvaſt vvater, vvhich ſhall at any time riſe aboue the height or leuell of the bankes: the bottome and ſides of this pond you ſhall paue all ouer with fine greene-graſſe-turfe which vvill be a great nouriſhment to the Fiſh, and aboue the water you ſhall plant Oziers, and on the top of the head diuers rowes of Willow, becauſe all fiſh take great delight in the ſhadow: and if you intend the pond for Carpe or Breame, you ſhall all along one ſide of the pond, ſtake and bind downe diuers fagots made of bruſh-wood in which the fiſh ſhall caſt their young or ſpawne, and ſo haue them preſerued, which otherwiſe would be deſtroyed.

Chap. XII.

What manner of wild fleſh is to be prouided for the furniſhing of the Fiſh-poole.

NOw one great commendation belonging to inheritances, is to haue wild fleſh and fiſh in the fields thereto belonging. As concerning the wild fleſh, the walkes thereof are partly in the woods, and partly in the warrens, of which we will ſpeak in their place: partly in the arable grounds and fallowes, as the great and little Hare, the Partridge, Quaile, and Larke: and part in the vvood, as the Hart, the Hind, the Doe, and the vvild-Bore: and as concerning birds, the Stock-doue, Turtle, Small-henne, Plouer, and others: but to returne to our fiſh-poole, the vvild fleſh thereof (eſpecially of birds) is the Swan, the Heron, the Woodcocke, Snite, Mallarde, Teale, young wild Duckes, the wild 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 water, the Otter, the Badger (vvhich verily hath a ſcalie tayle like Fiſhes) the Beauer, and the Dormouſe, vnto vvhich vve 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 wild fleſh of the fiſh-poole.

Beaſts of a two fold life.

Chap.

CHAP. XIII.

Of the sorts of Fishes wherewith Pooles, Ponds, and Ditches, are to be furnished.

IF you desire 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 doe not feed alike in all manner of places: the stonie and rockie places do like well the fishes called thereupon *Saxatiles*, or fishes liuing in stonie places, as the Trout, Pearch, Loach, Lumpe, Mullet, and Gudgeons: In muckie and slimie places, the Tench, Bourbet, Codfish, and Eele doe delight to liue: In grauelly and sandie grounds, the Salmon, the Pike, and the Barbel, doe not much dislike to liue. Wherefore, to the end that vve may speake generally, in regard of the fish of pooles, ponds, or ditches (things common amongst the inhabitants of Beaux, though they haue no such store of vvater as the people of Salongne, Percheron, Turraine, Anjou, or Mantz) the most common, and which best store and furnish the same, are the Carpe, and the Barbell. It is true that the Pike is a good meat, especially if he be kept in springing vvaters, and into vvhich there runneth some riuer (as the poole of Nau, or Nouë, as also that of Gouuieux, the two most naturall and greatest pooles that are in all France, and such as neuer drie vp) but in keeping of him there is this daunger, namely, that he is a verie 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 kind cast into the pooles againe, after they be once drawne out, vvhich yet is vsed in the little ones of all other kinds besides. The small fish, vvhich is called vvhite, are the Pearch, the Mullet, the Millers-thombe, the Cheuin, Gudgeon, Loach, Menuise, and the Trout, albeit that the foremost 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 vvaters, or in great springs. The Salmon-trout is a verie 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 meat, as is also the Eele, which yet proueth singular good in great pooles, and greatly commended being taken in that of Nouë, and at the mills of Gouuieux: witnesse hereof, are the Eele-ponds which haue beene caused to be made there by Princes, and therefore that of Nouë seemeth to me to be of greater account, because of the causey belonging thereunto: but there are some which disdaine the eating of eele, in respect of the vnsauorinesse of her flesh, and also because (as some say) she coupleth with the snake. But whatsoeuer the matter is, I find her as good in a swift running vvater, as either the lampreie or lamperne, a venimous fish in the Sea, though when she is scoured and come vp into the great riuers, as Loire, she become a good firme nourishment, saue that it is somewhat slimie, and of a hard digestion, how well soeuer it be dressed or handled.

Carpe. Barbell. Famous pooles. The pooles of Nouë and Gouuieux.

White fish. The Trout.

Tench. Eele.

Eele ponds.

The lamprey a venimous fish in the Sea.

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 than 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-bow-net, or with a little maund of bulrushes, as also the little fish with the shoue-net, small-net, called a truble and line; for the fire, the tunnell and bait are forbidden by all right. The net and the hooke are chiefe and principall of all the rest.

The excrements of the poole are the frog and the creuise.

Sorts of fishing forbidden.

And of nets there are diuers sorts and kinds, as first the long draw-net, vvhich containing many fadomes in length is as it were diuided into two parts, and in

Diuerse kindes of nets.

the middeſt a long rod or pole drawne cloſe together at the furtheſt end with a heauie ſtone hanging at the ſame, and into which the fiſh flie when they are taken, then is this net plumbed with lead all along the lower ſide, and floated aboue with bigge round floats of Sallow-wood to keepe the net from ſinking, it is but onely poled at the two outmoſt ends the juſt bredth of the net: this net is to draw ponds, riuers, or meares withall; then is there the flew, and ſtand net, vvhich are without rods, plaine ſingle nets onely, as it were farced or lined before with another ſtrong net, euerie maſh being ſixe or eight inches ſquare, theſe nets are to fiſh vvithin narrow brookes, blind dikes, and other ſmall rundles, the ſtand net being prickt downe firſt, and the flew drawing along vnto it; then is there the leape net, which is made ſquare with many rods running one into another, and this is faſtened vnto a leape made of Oziers, and are onely to take Eeles or other fiſh in mill-dames, or other ſuch like ſtrait places: for the ſhoue net, ſpade net, or caſting net, they are only to fiſh in holes, ſo is alſo the augure, which is a ſharpe inſtrument of yron made thinne with many ſharpe teeth, and ſo ſtriken into holes or muddie banks, vvhere they vvill many times catch a verie great aboundance of Eeles: Beſides theſe, there are diuers other engines, as hookes, lines, the angle, and ſuch like, but none of more vſe than theſe alreadie ſpoken of.

Chap. XIIII.

That Fiſh-pooles muſt be looked vnto, and the ſides thereof repayred.

BVt and if you mind to reap any profit by your fiſh-pooles or fiſh ditches, you muſt haue care to lay them drie euerie ſixe yeare at the leaſt, and to dreſſe them euerie three yeare taking away the reedes, bulruſhes, and broad leaues of vvater-lillies, and other vvater-flowers, for theſe hinder the Fiſh that they cannot ſport themſelues, and maketh them eat muddily, and of a bad taſte. You muſt likewiſe chaſe and driue away vvater-rats, or elſe take them vvith ſome engine: as alſo the Otter and Beauer, as mightie ſpoylers of the fiſh-pooles: Theſe two tyrants are found in greater number in Loraine, than in our true and naturall Countrie of France. Furthermore, you muſt haue care that there be not much ſhooting in Gunnes at the vvild-fowle which is found to haunt therein, becauſe ſuch ſhooting aſtoniſheth the fiſh, and killeth it oftentimes. Againe, there are other meanes for the taking of ſuch wild fleſh: neither is the croſſe-bow ſo daungerous, vvhether it be the tiller, or the bullet. It is true, that the long-bow is the moſt ſingular of all, and performeth the action of killing as wel as the Turkiſh bow, vvhen it is drawne luſtely, and by one vvhich hath a good ſight.

To baniſh water rats.

Not to ſhoot at wild fowle aboue fiſh-pooles.

Gunnes cauſe fiſh to die.

The greateſt charges of the fiſh-poole is the keeping of the bankes and cauſey, the vvater-ſtops, ſluces, and ditch ouer againſt the poole, made for the receiuing of the vvater during the time of the fiſhing, as alſo to rid it of mud and vnprofitable weeds, 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 drying vp of thoſe Springs, and to cauſe them to diuert and turne their courſes another way: wherefore all good houſholders muſt be furniſhed with yron to repaire the grates, and flints, and hard ſtones for the maintenance of the cauſey.

The vaiſing of the ſides or bankes of the fiſh-poole.

As concerning the pondes and ditches for fiſhes, they muſt be often dreſſed, repleniſhed vvith new ſtores, and alſo 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 careſull and diligent alwaies in his taking of fiſh,

Fiſh-ponds and fiſh ditches.

to

o caſt the ſmall backe againe into the water, and not to kill them out-right if he can auoid 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 fire-wood of for the houſhold: others againe doe plant the Aſpe and Poplar-tree, and euerie one of theſe, according as they find their ground beſt diſpoſed to beare the one or the other.

Chap. XV.

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 vitaile, then thoſe vvhich 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 vvith one reliefe or other brought vnto them by the courſe of the vvater, beſides the ſmall fiſhes which are the food and ſuſtenance of the greater: but the other ſhut vp and incloſed in ſafegard, cannot goe forth a hunting after any prey. It vvill be good therefore ſometimes to caſt them in of all ſorts of ſmall Fiſhes, the bowells and entrailes of great Fiſh, tender figges cut downe, crackt Walnuts, ſoft ceruiſes boyled, freſh cheeſe, lumpes of white bread, certaine fruits chopt ſmall, all ſorts of ſalt fiſh, and ſuch other like victuall: for and if the fiſh be not fed and made fat vvith meat vvhich the houſholder or farmer ſhall giue vnto them, vvhen they ſhall be carried either to hall or market (for my meaning is that the good farmer ſhould make his profit of all things) the leanneſſe thereof vvill manifeſt, that they vvere not taken in any full Sea at their libertie, but in ſome place of gard and reſtraynt, and ſo they vvill not ſell ſo deere by much. And ſometimes it vvill be good to caſt vpon the pooles and ponds the freſh leaues of parſley, for thoſe leaues doe rejoyce and refreſh the Fiſhes that are ſicke.

Beſides, to keepe your Fiſh-ponds well turſt as vvas before ſaid, ſo as they may haue ſtore of greene graſſe in them, is an excellent reliefe for fiſh, and a food which they vvill deſire as much as any other, for they vvill ſucke and feed vpon graſſe exceedingly: therefore when graſſe is in the prime, and hath full bit vpon it, if you gather large turfes thereof, and pin them faſt downe vnder the water, they will feed and fatten the Fiſh wonderfully: the chippins of bread, or other cruſts which come from the farmers table, although they be greaſie and foule, yet are they a verie good feed for fiſh; ſo is alſo the clotted bloud of beaſts, as ſheepe, oxen, or any other kind, being caſt into the pond morning and euening; the young brood of Waſpes when you find their neaſts, being caſt into the water, is a food that fiſh will delight in before any other. *Food for Fiſh.*

CHAP. XVI.

Other more certaine and approued wayes to take all manner of Fish, especially with the angle, and other instruments.

AS for that vvhich hath beene before written, being onely the secrets and experiments of the French practise, I doe not hold it sufficient for the satisfaction of euerie judiciall Reader, and therefore I vvill wade a little further in this art, and shew you the maner of taking of all sorts of fish by the angle, which is the most generous and best kind of all other, and may truely be called the Emperor of all exercises. To speake then first of this art of angling or taking of fish with the angle, you shall vnderstand that it consisteth in three especiall things, that is to say, in the instrument which is the angle, in the intisement vvhich is the bait, and in the true vse of them both together, vvhich is the seasons and times of the yeare fittest for the sport. To speake then first of the angle-rod, it must be generally of two peeces, but particularly, as for the pike, or other greater fish, it may be made of one entire peece; the substance of the stock would be a vvel grown ground Witchen, an elme, or an Ewe, or a hasel, and the top would be of hasel, or Whale-bone: some anglers vse to compound their rods of many peeces, as those which are made of cane, wherein one joynt is applied into another, but they are more for pleasure than any generall profit. To these rods doe belong lines made of the strongest and longest horse-haire which can be got, nor are they to be gotten of leane, poore, and diseased jades, but such as are faire, fat, and in ful strength, and if conueniently you can, it is best euer to gather them from stoned horses, and not from mares or geldings: of haire, the blacke is the vvorst, the vvhite and gray best, and other colours indifferent: your smallest lines vvould consist of three haires, and your bigger of seuen: if amongst your haire you mixe a silke-threed or two, the line vvill be the better and stronger: you shall twist your haires neither too hard nor too soft, but hold a mediocritie, so as they may twine and couch close together, and the ends you shall fasten together vvith a fishers-knot, vvhich is your ordinarie fast knot, foulded foure or fiue times about, both vnder and aboue, to make it from loosening in the vvater: for the length of your lines, they must answer to the places in which you angle, some being foure fadome, some sixe, and some more, according to the length of your rod, or the depth of the vvater: your lines (though their naturall colours, as being vvhite or gray, is not amisse) vvould yet sometimes be coloured of other colours, according to the seasons of the yeare, for so the shadow of them (vvhich is most daungerous) will least scarre the fish, and sooneſt intice them to bite; and of these colours the Water-greene is the best, yellow next, then russet, darke browne, or tawnie.

Art of Angling

To die your lines of a Water-greene, you shall take a pottle of Allome-vvater, and put thereinto a handfull of Marigolds, and let them boyle vvell till a yellow scum rise on the top of the vvater, then take the quantitie of halfe a pound of greene coperas, and as much of Verdigrease beaten to fine powder, and put it vvith the haire into the vvater, and so let it boyle againe a little space, and then set it in some place to coole for the space of halfe a day, then take out your haire, and lay it vvhere it may drie. This colour of Water-greene is good to angle with in all clayie vvaters, from the Spring till the beginning of Winter. If you vvill haue your haires yellow, you shall take Allome-water (as beforesaid) and Marigolds, and boyle them therein, adding thereto a handfull of turmerick, or for want thereof, so much of green Walnut-leaues, and mixing it with the vvater, steepe your haires therein a day and a night, then take them from them, and drie them: these yellow coloured lines are good also to angle with in cleare water, if they be full of weeds, sedge, and other water flowers,

To die fishing lines.

flowers, for it is not vnlike to the ſtalkes thereof, and the time beſt from Michaelmas till Chriſtmas. To make your lines ruſſet, you ſhall take a quart of Allome water, and as much ſtrong lee, then put thereunto a handfull of ſoot, and as much Browne of Spaine: then when it hath boyled well an houre or two, ſet it by to coole, and being cooled, ſteepe the haires therein a full day and a night, and then lay the haires to dry. This colour is good to angle within deepe waters, whether they be riuers or ſtanding pooles, and are beſt to be vſed from Chriſtmas till after Eaſter. But if you will haue them of a darke browne colour, then you ſhall take a pound of Vmber, and halfe ſo much ſoot, and ſeeth it in a pottle of Ale a good ſpace: then being coole, ſteepe your haires therein the ſpace of foure and twentie houres, and then hang them vp to drie, and if the colour be not darke ynough, you may adde a little more of the Vmber, and it will darken it. Theſe lines are beſt to angle with in blacke and muddie waters, whether they be ſtanding pooles or running ſtreames, and will endure all ſeaſons of the yeare. Laſtly, to make your lines of a tawnie colour, you ſhall take lime and water, and mixe it together, and ſteepe your haires therein halfe a day: then take them forth and ſteepe them double ſo long time in Tanners ouze, and then hang them vp to dry. Theſe lines are beſt to angle with in moorifh and heathie waters, which are of a reddiſh or browne colour, and wil ſerue for that purpoſe all the ſeaſons of the yeare. Now if with this colour, or the greene, you mix a ſiluer thred, it wil not be amiſſe, and with anie of the other colours a gold thred, they will be much better to angle withall. Alſo you muſt remember to make at each end of your lines good bigge loopes, the one, to faſten to the top of your rod, the other, to the hooke-line, which commonly is not aboue a foot long at the moſt.

To theſe lines there doth alſo belong Corkes, or Floats, which you ſhall make in this manner: Take of the beſt and thickeſt Corke you can get, and with a fine rape hauing pared it cleane, cut it into the faſhion of a Peare, bigge and round at the one end, and ſmall and ſharpe at the other, euer obſeruing, according to the bigneſſe of your line, to make the bigneſſe of your corke: as, for a line of three haires, a corke of an ynch, or little more, long, and to the bigger lines, bigger corks: through this corke you ſhall thruſt a quill, and through the quill the line. The corke ſerueth onely to let you know when the fiſh biteth, therefore the leſſe it is, the better it is, for it onely giues the leſſe ſhadow, prouided that it be euer in your eye: for though ſome Anglers will fiſh without corkes, yet it is not ſo good, nor ſo certaine. In placing your corke vpon your line, you muſt put the ſmall end downeward, and the bigge end to the topward. Now there be ſome Anglers which make their corkes of the faſhion of Nutmegs, ſmall at both ends, and bigge in the middeſt: and it is not much to be diſliked, onely it is a little ſooner apt to ſinke, and you may thereby ſtrike before the fiſh haue fully bitten: others ſhape their corkes in the faſhion of a Whirle, or of a little Apple, round and flat on both ſides: and this corke is not amiſſe to angle with at great fiſh, becauſe it being not ſo apt to ſinke, will flote till the hooke be faſtened, and that the fiſh beginneth to ſhoot away with the bait: ſo that the Angler then ſtriking, can ſeldome or neuer looſe his labour. *Corks, or Floats.*

The next inſtrument to theſe which belongeth to the Angle, is your Hooks, which are of diuers ſhapes, ſome being bigge, and ſome little, and ſome of a meane betweene both, according to the fiſh at which you angle. The beſt thing to make your hooks of, is either old Spaniſh needles, or ſtrong wyar drawne as neere as can be to that hardneſſe of temper, which being nayled and allayed in the fire, you may bend anie way. Now the beſt way to ſoften your wyar before you worke it, is to hold it in the blaze of a candle till it be red hot, and then let it coole ſoftly and gently of it ſelfe: or if not thus, then roule your wyar vp, & put it into a charcoale fire till it be red hot, and then let it coole at leiſure. As touching the making of your hookes, you ſhall onely with a paire of plyars bend them to what proportion you pleaſe, and then with a ſharpe file make the point and beard as ſharpe as may be, and batter the lower end flat to which you muſt warpe your line. But becauſe the trouble of making is a little noyſome, it ſhall be beſt to buy them from ſuch as make a liuing or trade thereof, and to buy of all *Hookes.*

ſorts,

sorts, euen from the least to the biggest, as well double hookes as single: the double, which is for the Pike or bigger fish; and the single, which is for the Pearch, Trout, or middle sort. Your double hooks are (as it were) two hooks of one piece of wyar, turned contrarie waies one from the other. This double hooke must not be fastened like the single to the line, but to a strong wyar ioyned vnto it, of a handfull long, or more, being well wound about and warped with a smaller wyar: then to it another wyar of the same length, warped as aforesaid, and by linkes ioyned together, and then the line fastened to the last linke: and these are called armed hookes, because they defend the hooke from shearing or biting in pieces with the teeth of the greater fish. Now for your single hookes, you shall thus fixe them vnto their lines: Take a length of your twisted haires, containing that number which is fit for your hooke, and hauing made a loope at one end, lay the other end vpon the inside of your hooke: then with a silke thred, of the colour of your line, whip and warpe the hooke round about, as thicke, close, and strait as may be, and then running the last end through the whole warpe, draw it as fast as you can, then cut it away close by the warpe. After your hooke is thus fastened, you shall plumbe your line: which is, to fasten certaine pieces of lead according to the bignesse of your line, about it, some being in length about a quarter of an ynch, some halfe an ynch, and some more, according to the bignesse of your corke, and the weight of the hooke: for these plummets are but to carrie downe the hooke to the bottome, neither being so heauie to make the corke sinke, nor so light, as not with the smallest touch to make the corke dip into the water. You shall vnderstand, that your first plummet would be a foot from the hooke, the rest not aboue an ynch one distant from another, & not being aboue fiue or seuen at the most: yet some Anglers vse nine; but it is not much materiall. There is in the plumbing of lines three seuerall fashions of plummets vsed: as, one long, another square, and the third in a diamond forme, yet all to one purpose, and the long ones euer the best, being smoothly and well fastened to the line, for feare of catching hold vpon weeds or other things in the bottome of the water. Besides these instruments before spoke of, you must haue a Musket bullet, which fastened to a line, shall serue to sound the depth of the water where you angle, that thereby you may plumbe your lines the righter, and set your corke in his due place: then you shall haue a large ring of lead, six ynches at least in compasse, and made fast to a small long line, through which thrusting your rod, and letting the ring fall into the water, it will helpe to vnloose your hooke, if it be at anie time fastened about weeds or stones which lye in the bottome of the water: then you shall haue a smooth board, six or seuen ynches square, and cut battlement-wise at each end, vpon which you shall lap your lines: you shall haue a boxe for your hookes, a bagge or horne for your baits, and another boxe for your flies, both aliue, or dead: you shall haue needles, silke thred, wax, and loose haires: then a roule of pitcht thred to mend anie cracke in the angle-rod: also a file, a knife, a powch with manie purses: and lastly, a fine basket of small wands, which shall hang by his side, to put the fish in which the Angler takes, and a small round net fastened to a poles end, wherewith you may land a Pike or anie other great fish. Againe, an Angler must be verie carefull in his apparrell, by no meanes wearing light or gaudie sutes, which may giue affright to the fish, but of the darkest colour you can prouide, as russet, tawnie, or such like, and of the plainest fashion, without hanging sleeues, or any other wauering thing, because they are blinks or scarres which afright fish: it would be warme for your owne health sake: you must also keepe your head and feet drie, for the contrarie breeds feuers and other ill sicknesses.

To fasten the hooke.

To plumbe the line.

Three seuerall fashions of plummets.

A musket bullet to sound the depth.

Apparrell for an Angler.

Best seasons for fishing.

Touching the seasons best to angle in: they are from Aprill till the end of October: and the best houres, from foure in the morning till nine, and from three in the afternoone till fiue in the euening, the wind blowing from the North, South, or West, and the ayre temperate, as inclined to warmenesse: but to speake a little more particularly, you shall vnderstand, that if the day be darke, close, and lowring, or haue a gentle whistling wind playing vpon the water, it is good to angle in: or if a fine mizzeling dew of raine fall gently without violence, the fish will bite the faster: also after

floods

floods are gone away, and the riuers are come within their owne bankes, and the water clearest, it is good to angle in. Againe, for your Summers angling, you shall chuse the coolest time of the day, for the heat is not good: but for the winter angling, you shall not make anie difference of times, if the day be calme, for all houres of the Sunne are alike, onely the noone-tide is esteemed best. If the water where you angle, ebbe and flow, the best time of angling is at an ebbing water; but in those places where the tyde is not great, there the time of flowing is preferred also: lastly, whensoeuer you see the Trout play or leape aboue water, and the Pike shute in the pursuit of other fishes, it is then a verie good time to angle in: and all times and seasons contrarie to these before rehearsed, are vild and naught to angle in. *Winter and Summer fishing*

After the knowledge of seasons, you shall know the best manner how to stand and place your bodie whilest you angle: for if you angle in anie pond or standing water, then you shall chuse that place which is deepest, blackest, and least transparent, shadowing your selfe vnder the banke, or so, as your shadow may be carried from the water; for it euer breeds a fright vnto the fishes: but if you angle in anie riuer, you shall chuse that place which is deepest and clearest; and here also you shall striue to conceale your selfe as much as is possible, by standing behind trees or bushes, or anie thing else that may couer you. *The best maner of fishing.*

Next to this, you shall know the haunts of fishes: as thus, the Carpe, Eele, and Tench doe euer haunt muddie places; the Carpe lying in the bottome thereof, the Tench amongst the weeds, and the Eeles vnder stones, or other couert: the Breame, the Cheuine, and the Pike haunt euer the cleare and sandie bottome; the Pike, where you see great store of small frie; the Cheuine, where the streame runneth swiftest, and the shade is greatest; and the Breame, where the water is broadest, and the depth giueth greatest libertie: also these three delight more in ponds than in riuers. The Salmon hath his haunt in the swiftest and broadest riuers, whose channell falls into the sea: The Trout loueth smaller brookes, the current being cleare and grauellie, and lodgeth most in deepe holes: so doth the Pearch also, onely he abideth most in the creekes or hollow places which are about the bankes. The Gudgin, the Loach, and the Bulhead haunt shallow waters: The Barbel, Roche, Dace, and Ruffe, haunt the deepe shadie places of those waters which are mixt with more sand than grauell, or where the clay is firme, and not slimie, and loue to lye vnder the shadowes of trees or bushes that grow on the banke. The Luce or Lucerne haunteth the broad and large meares, being deepe and still, and euer lodgeth in the bottome thereof. The Shad and Tweat haunt those waters which are brackish, deepe, and accustomed to ebbe and flow: and where they haunt, there commonly is found both the Mullet and the Suant, all which loue to lodge close and flat at the bottome, so it be rather clay than grauell. *The haunts of fishes.*

Next to the knowledge of the haunts of fishes, you shall learne to know the seuerall baits, which, besides those formerly described (which are indeed French secrets) there are manie other, and may be reduced to two kinds, Liue-baits, and Dead-baits: your Liue-baits are wormes of all kinds, especially the Red-worme, the Maggot, the Bob, the Dore, browne Flyes, Frogges, Grashoppers, Hornets, Wasps, Bees, Snailes, small Roches, Bleakes, Gudgins, or else Loaches: your dead-baits are pastes of all kinds, of which we haue exprest diuers before, and their vse; yong brood of Waspes, dried or vndried, clottered Bloud, Cheese, Bramble-berries, Corne-seedes, Cherries, and all sorts of flies made of silke and feathers so liuely, that they will many times deceiue a good iudgement, of which there are diuers, as the dunne flie, the stone flie, the red flie, the yellow flie, the blacke flie, the darke yellow flie, the moorish flie, the tawnie flie, the Waspe flie, the shell-flie, and the cloudie darke flie. Now for the seasons in which all these seuerall baites are to be vsed, you shall know, that the Red-worme will serue for small fish all the yeare long; the Maggot is good in Iulie, the Bob and Dore in May, the browne flies in Iune. Frogges in March, Grashoppers in September, Hornets, Waspes, and Bees in Iuly, Snailes in August: all pastes are good in May, Iune, and Iuly, dried Waspes in May, Sheepes bloud and Cheese in Aprill, and *Baites.* *The fit times for euerie bait.*

and for Bramble-berries, or Corne-ſeeds, they are good at the fall of the leafe onely. Laſtly, for your dead flies; the dunne flie is good in March and Februarie; the ſtone flie is for Aprill; the red flie and the yellow flie are for May; the black flie, the darke yellow flie, and the mooriſh flie, are for Iune; the tawnie flie for part of May and part of Iune; the Waſpe flie and the ſhell flie are for Iuly; and the cloudie darke flie for Auguſt.

To preſerue baits.

Now for the preſeruation of all baits, eſpecially the liuing ones, for the dead doe not ſo ſoone periſh; you ſhall vnderſtand, that they muſt not be kept all together, but euerie kind ſeuerall by it ſelfe, and nouriſhed with ſuch things as they delight in: and firſt, for the Red-worme, you ſhall put them into a bagge of red cloth, and chopping a handfull of Fennell, mix it with halfe ſo much fine mould, and put it to the wormes, and they will not onely liue long therein, but alſo ſcoure and feed. Some put moſſe amongſt them; others put Parſley, or ſweet Marierome; neither is it amiſſe: but the firſt is beſt, and will keepe them full two moneths in perfection: For the Maggot, you ſhall mix with them Sheepes tallow, or little bits of a beaſts liuer. The beſt way to ſcoure them, is to put them into a bagge of blanketting with ſand, and hang them where they may haue the ayre of the fire for an houre or two. For Frogges and Graſhoppers, you ſhall keepe them in wet moſſe and long graſſe, moiſtened euerie night with water. As for the Bob, Cadys worme, the Canker, and ſuch like, you ſhall keepe them with the ſame things that you find them vpon: and for all ſorts of liue flies, you ſhall vſe them as you take them; onely the Waſpe, the Hornet, and the Bumble-bee, you ſhall firſt drie them a little in a warme Ouen after the bread is drawne, and then dippe all their heads into Sheepes bloud, and then drie them againe, and ſo keepe them in a cloſe boxe, and they will keepe two or three moneths in verie good perfection.

To fit fiſh with the baits they delight in.

Now, for the ſeuerall fiſhes, and how they delight in euerie ſeuerall bait, you ſhall know, that the Gudgin, Roch, and Dace, loue the Red-worme, Cod-worme, Maggot, clottered bloud, or the young brood of Waſps; the Carpe loues paſte, the Moſſe-worme, the Red-worme, the Menow, the Cadys worme, or Graſhopper; the Chub, Cheuine, or Trout, loue all ſorts of dead flies, Cadys worme, Bob, Frogges, Dores, or Hornets; the Eele loues the Red-worme, or Sheepes guts; the Flounder or Suant loues the Red-worme, or brood of Waſpes; the Grayling, or the Barbel, loue all that the Trout loues; the Breame loues Butterflies, greene flies, paſte, or brood of Waſps; the Tench loues paſte, the Red-worme, Maggots, & dried Waſps; the Bleake, Ruffe, and Pearch, loue the Red-worme, the houſe-flie, fat Bacon, Bob, Maggot, or Canker; the Pyke loues the ſmall Roch, Dace, or Menow, Frogges, or Bulheads: Laſtly, the Salmon loues all thoſe baits which the Trout loues; as paſte or flies in Summer, and all ſorts of Wormes, or the Cankers or water-Dockes in the Winter. And thus much for the generall ſatisfaction of all Readers, which deſire knowledge in this art of Angling, and which indeed is verie proper and fit for our Husbandman.

Chap. XVII.

The fiſhing of all ſorts of Fiſh.

THe fiſhing or taking of fiſh is diuers, according to the Riuers and Waters wherein they keep, 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 verie difficult and long to deſcribe, we will leaue this knowledge to ſuch as make account to ſell and buy fiſh, and will onely declare, for the benefit of the houſeholder, 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,

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 hooke are the moſt ingenious and wittie,but leaſt profitable,and of ſlendreſt reward.

The fitteſt time to goe a fiſhing in Autumne,is after Sunne-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 chiefely before the Sunne 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 engender, they riſe from the bottome of the depths to the vppermoſt part of the waters, yea, oftentimes to the verie edges thereof. The worſt and moſt vnfit time of all other is the Summer,eſpecially whiles the Dogge-daies laſt, the heat 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 Summer, it muſt be in the night ſeaſon. In fiſhing you are to haue regard vnto the wind: ſo that when the North wind bloweth, you muſt turne your Nets toward the South wind, and the South wind blowing toward the North wind. 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 anie tempeſt abroad. *The time to take fiſh.*

For to gather fiſh together into one place: Take Penyryall, Sauorie,Organie,and Marierome, of euerie one the weight of three French crownes, of the barke of the Frankincenſe and Myrrhe-tree,of each one ounce, of ſweet Cherries dried and infuſed in good wine,halfe a pound, of a Hogges liuer roſted, of Goats greaſe and Garlike,of each a pound: ſtampe euerie one by it ſelfe, and after put thereunto ſome fine grauell; with this,mixt together, you ſhall feed the fiſh for ſome houre 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 ſorts of fiſh: Take Sheepes ſewet,of burnt Seſamum,Garlike,Organie, Thyme, and dried Marierome, of euerie one a ſufficient competent quantitie, ſtampe them with the crummes of bread and wine, and giue of this compoſition to the fiſh to eat: Or elſe take ſweet Cherries dried,and braying them,make pills thereof to giue vnto fiſhes: Or make a meat with vnquencht Lime,old Cheeſe,and Rams ſewet: caſt this into the water, and preſently you ſhall ſee the fiſh flote and lye ſtill vpon the water. Fiſhermen, to catch ſmall fiſh with the Line, doe bait hookes with ſmall earth-wormes,whereof the fiſh are verie deſirous and greedie. Otherwiſe:take the Indian ſhell,Cummin,old Cheeſe,flower of Wheat,knead them all together with Wine,make pills thereof as great as ſmall Peaſon: caſt them into the Riuer when the water ſhall be quiet and calme,all the fiſh that ſhall taſt 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 root of Birthwort bruiſed, or Sowes bread, and vnquencht Lime: caſt vpon the water ſome portion of this confection, the fiſhes will haſten vnto it preſently, and hauing taſted thereof,will die ſuddenly. *To catch all ſorts of fiſhes.*

To take ſmall fiſhes: Take the fleſh of a Snaile without a taile,and thereof make a bait,and put not on anie more than one little Snaile at a time: Or elſe take the fleſh and bloud of a Calfe well pownd, put it into a veſſell,and ſo leaue it by the ſpace of tenne daies; afterward vſe it to make baits of. Otherwiſe: take ſweet Cherries dried, and bray them,making pills thereof,which you ſhall caſt vnto the fiſhes. *To take ſmall fiſhes.*

Take Sal ammoniake an ounce, Onions,the weight of a French crowne,of the fat of a calfe the weight of ſixe crownes: make pills thereof after the faſhion of beanes, and offering them to Torteiſes,they vvill come to the ſmell,and ſo be taken. *To intrap and take Torteiſes with bait.*

For the Cuttle-fiſhes: Take the lees of ſtrong Wine, and mixe them vvith oyle, and caſting it into a place, vvhere you know that the Cuttle hath caſt her blacke and ſhadowing humor, ſhe will come to the place where the oyle is,and ſo you may take her. Or elſe take Sal ammoniack two ounces,Goats butter an ounce: ſtampe them all *To catch the Cuttle fiſh.*

and

and make little soft loaues thereof, wherewith annoint some kind of corne, or little clothes that are not fringed: for so it will come to passe, that the Cuttle will feed round about them, and not stirre away, so that you may take them presently.

To fish for and to take Loaches. To take Loaches: Take the bran of Wheat two pound, of whole Lintiles halfe a pound, mingle them together, and bray them with a sufficient quantitie of salt brine: after, put thereto halfe a pound of Sesamum, of which you must cast about you some heere and some there, for as soone as you haue cast it from you, all the small fish will hasten vnto it, and (which is more) they will flock together into one place, though they be sixe hundred paces off. Or else take Neats bloud, Goats bloud, Sheepes bloud, & Swines bloud, and the dung which is in the small guts of an Hog, Thyme, Organie, Penyriall, Sauorie, Marierome, Garlick, and the lees of wine, of ech alike, of the greases of the same beasts so much as you shall see to be enough: stampe euerie thing by it selfe, after mixe them together, and make pills thereof to cast into the place whither you would haue the fish to flocke, and that an houre before you cast in your net. Otherwise, take the bloud of a blacke Goat, and Barly flower, of each alike, bray them both with the lungs of the Goat cut very small, and make pills thereof to vse after the manner aforesaid. Otherwise, take Garlicke halfe a pound, burnt Sesamum as much, Penyryall, Organie, Thyme, Marierome, Sauorie, and wild Stauesacre, of each foure ounces, of Barly flower a pound, of the dough thereof 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 bait, and that in a puddlie and troubled water: wherefore you must make a bait with the liuer of a Goat, and bait your hooke therewith. Or else take yellow Butterflies, and Cheese of Goats milke, of each halfe an ounce, of Opopanax the weight of two French crownes, of Swines bloud halfe an ounce, and of Galbanum as much; then pownе them all verie 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 afterward 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 wild Rue seed, 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 kind of Salmon, are taken with the hand, hauing betaken themselues into their holes: or with Nets, or at Weyres: and sometimes with the light of a candle.

The Gudgeon. The Gudgeon is taken with a hooke, or the little Net, called a Truble.

The Carpe. The Carpe is taken with the Net, hooke, or engines laid at Weyres: but shee ostentimes deceiueth the Net, shoouing her head downe into the mud or myre, wherein shee delighteth.

The end of the fourth Booke.

THE

THE FIFTH BOOKE OF THE COVNTRIE HOVSE.

Of Arable Grounds.

The measuring of Lands, of what sort or forme soeuer they be.

CHAP. I.

Of the common Measures whereby things are measured.

NOtwithstanding, that the Art of measuring Grounds doth more properly belong vnto the Geometrician, than vnto the Husbandman; and euen as chiefe Masons and Master-builders, who ought to haue the skill of Measuring, doe not vouchsafe, at anie time, to measure the Workes and Buildings which they haue set vp and finished, but leaue the same for such as make profession of Measuring: So likewise it may seeme, that this is no dutie of the Husbandmans, to measure out his grounds, but rather appertaining, and therefore to be expected of them which practise such art and skill. Notwithstanding, being desirous that the Master of this our Countrey Farme should not be ignorant of anie thing which may serue for the enriching of his house, and encrease of his wealth, I haue thought it meete and reasonable, before I passe anie further vnto my purposed discourse of the husbanding and tilling of Corne-ground, familiarly to vnfold certaine rules of Measuring, which are verie common with vs here 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 Medowes, Vineyards, Woods, Isles of Water, Courts, Gardens, Corne-ground, places, fields, and others whatsoeuer, are measured in France by the foot, fadome,

The Measures in France called the Kings measures.
The Kings foot.
The Inch.
The dour.
The quarter.
The fadome.
The pole.

and pole. The foot, according to the Kings measure, containeth throughout all France twelue ynches: the ynch twelue lines, and euerie line must be of equall length to the thicknesse of a barly corne that is full and well fedde. A tierce or third part of a foot, is called a Dour: and the fourth part is called a Quarter. The fadome and the pole are measured by the foot, but how manie foot the one and the other should containe, there is not anie so sure and certaine a rule which holdeth through all France, as there is for the foot, by reason of the varietie of Measures, and those not in diuers Countries of France onely, 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 sixe foot and eight ynches; and the pole, twentie foot: elsewhere, the fadome containeth seuen foot and foure ynches, and the pole two and twentie foot: In manie places the fadome containeth sixe foot, and the pole eighteene foot: In others againe the fadome containeth sixe foot fiue ynches and halfe an ynch, or thereabout, and the pole nineteene foot and one dour, which is foure ynches.

True it is, that as the rule is certaine through all France, that a foot containeth twelue ynches, 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, than for measurers of ground) for the well measuring of all sorts of grounds, you must content your selfe with two principall measures, the foot and the pole, not forgetting or omitting your ynches, quarters, and thirds, which are parts of a foot. Which more is, in as much as feet, fadomes, and poles are but small measures, and such as whereof might rise (as it were) an infinite number, or (at the least) a verie troublesome number, and such a one, as the reckoning whereof could hardly be kept, especially when there is need of measuring a Wood, Medowes, Places, Isles, arable ground, and other places of great compasse; besides the foot, fadome, and pole, there is vsed another measure, which the Frenchmen call an Arpent, but of the people of Burgundie and Champaigne, and manie others, it is called *Iournax*, deriued from the Latine word *Iugerum*, which containeth as much ground as two Oxen or Horse coupled or yoaked together can tyll in one day. The Normans call it an Acre, taken from the Romane word *Actus*. This measure ariseth of manie poles being put one vnto another, or else multiplied together, as the poles doe rise of manie feet multiplied.

It is verie true, that euen as the pole doth not hold throughout all Fraunce one measure of feet, so neither doth the Arpent consist infallibly of one number of poles: but looke (almost) how manie Countries there are, euen so manie differences of sorts of Arpents there are likewise: And that it is so, there are to be noted, amongst manie other, foure sorts of this measure, called the Arpent, as being most accustomed to be vsed. The first of them is called the Kings Arpent, and it is vsed of men ordinarily about the measuring of Woods, and it consisteth of two and twentie foot to the pole, twelue ynches to the foot, and a hundred poles to the Arpent. The second is more common, consisting of twentie foot for a pole, twelue ynches for a foot, and a hundred poles for an Arpent. The third is the least vsuall of all, it consisteth of nineteene foot and a third, which are foure ynches in euerie pole, twelue ynches to a foot, and a hundred poles to an Arpent. The fourth is most common of them all, consisting of eighteene foot for euerie pole, twelue ynches for euerie foot, and a hundred poles for euerie Arpent. Because therefore of such great diuersities of measures of the Arpent, the Measurer shall not of necessitie bee put beside the right performing of his worke; before he begin to measure, he shall diligently and wisely enquire of the measure that is holden by the custome of the Countrey, in the place where he is called for to measure.

Further-

Furthermore, you muſt know, that the arpent may be diuided into manie parts, as the halfe arpent, a tierce, a fourth, a halfe fourth, a halfe tierce: all which containe, euerie one according vnto his proportion, ſo much as the whole arpent containeth.

The inſtrument and perſons required as neceſſarie to helpe to make meaſure.

THe Meaſurer muſt be prouided of tenne or twelue arrowes, otherwiſe called little broches, or prickes, becauſe they are prickt downe in the earth, to guide the chayne: they are made of wood, but harneſſed at the nether end with a ſharpe pointed end of yron, of the length of two foot, or thereabout, being of ſuch thickneſſe, all the tenne or twelue together, as that a boy of fifteene yeares old may eaſily hold them in his fiſt. Wee haue ſaid, that hee muſt haue ſome tenne or twelue of theſe arrowes, that is to ſay, tenne of them, when the Meaſurer doth vſe his Geometricall ſtaffe in ſtead of one ſticke, or eleuen, when he doth not vſe his ſtaffe.

The ſecond inſtrument verie neceſſarily required for the Meaſurer to meaſure aſſuredly withall (that is to ſay, not to faile in his feet and poles, and in the number of them) is the *Richards* chayne, which is made of yron rather than of coard, (becauſe that coard being apt to ſtretch, it will not keepe his exact length conſtantly at all times) and alſo ſufficient ſtrong and thicke, and diſtinguiſhed and diuided by round buckles or mayles at the end of euerie foot, to the end it may be folded vp together the more eaſily into one: It muſt be of the length of a pole, according vnto the cuſtome of meaſuring in Fraunce; or of two or three poles, more or leſſe, according vnto the aduiſe of the Meaſurer, and cuſtome of the countrey: and it muſt likewiſe haue in the end of euerie length thereof 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 anie manner of force or violence vſed. Beſides, the ſaid chayne muſt alſo (if a man be ſo diſpoſed) be marked by the way, that is to ſay, into tierces and fourthes, with ſome mayles differing from the mayles of the chayne, that by them the tierces and fourthes may be the better knowne: And as for the Meaſurer, hee muſt haue three or foure foot length of chayne to reſerue vnto himſelfe about his Spade, or in ſome little bagge of Leather, that ſo vpon occaſion (if need be) he may lengthen the chayne, or elſe helpe to make it againe, if in caſe it ſhould breake. In this figure or picture following you may ſee the ſhafts in a bundle by themſelues, and the chayne gathered vp together by it ſelfe.

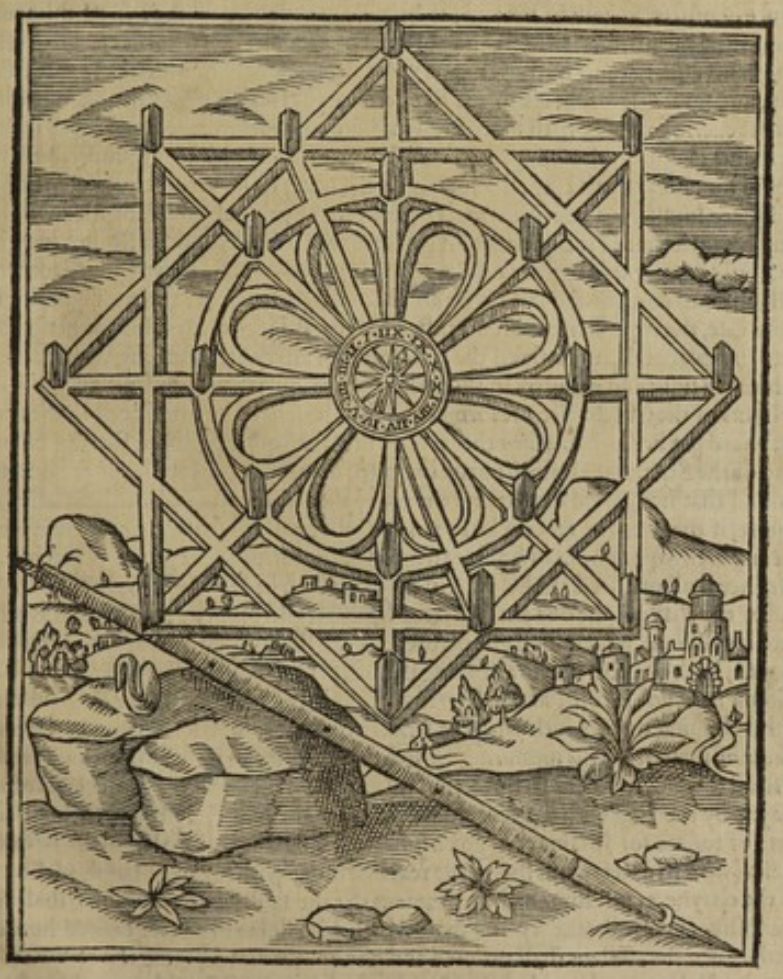
The principall instrument for the Measurer well and assuredly to find out the forme of the earth which he must measure (whether it be square, or somewhat long, or of anie such other forme; for to iudge of and discerne the length and breadth thereof; for to reduce all sorts of earth, and of whatsoeuer forme they be, into a square; and to order and begin his measuring well) is the Squire, which is an instrument made of yron, or molten mettall, or of common wood, 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 middest a round, in manner of a ring, reasonably thicke, bored in the length thereof cleane through with eight holes, without which the said instrument would be altogether vnprofitable. By those lights or holes the Measurer shall make his sight, by winking on the one eye, to discerne the length and bredth, and all other forme of the grounds which he must measure. There must also be on high, iust in the middest of the round of this Squire, a hole, for to receiue the Measurers staffe, whereof wee will speake by and by, that so it may beare vp the said Squire, and raise it on such a height as shall be needfull for the Measurer to take the view and sight of the ground fitly and conueniently.

It

It will be good also, though not much necessarie, that there were a dyall set vpon this round, to discerne the houres of the day, if need be, and to know in what part the South standeth.

The staffe that beareth vp the Squire, is called the Geometricall staffe, which must be of wood, verie straight, six foot long, or thereabout, and reasonably thicke, so as it may well be carried and held in your hand, hauing the end downeward sharpe and shod with a sharpe point of yron, made verie hard and thicke, or else of Copper, and hauing a little hindge after the fashion of a vice aboue, and in the end thereof a little hoope to receiue and hold fast the Squire set thereupon, that so it may not moue, tremble, or shake with the wind, yea, though it be a great and violent wind that bloweth, whiles the Geometrician is in performing his businesse. The staffe must be marked out all along with lengths of feet, halfe feet, fourthes, and tierces of poles. *The Geometricall staffe.*

In this present figure you may see the Squire and the Staffe, each of them by themselues.



The Geometrician must likewise haue in readinesse two sorts of writing-Tables: The one of Slate, reasonably thicke, with a penne fastened to the same, at the end of a little string; and it must be likewise of Slate, that so it may not cut the said 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 penne, 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 muſt alſo haue two men: that is to ſay, one his aſſiſtant to goe before him, and to carrie the end of the chayne, and to thruſt downe into the earth the tenne or twelue ſhafts: and the partie whoſe ground is meaſured, or ſome one for him, that can lay and point out vnto the Geometrician the bounds and limits of the ſaid peece of ground, whether it be arable, wood, medow, or anie other ſuch like 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 ſaid, to helpe him about his worke) muſt diligently enquire of the manner, faſhion, and cuſtome of meaſuring in that place, and of what length his chayne muſt be, how manie poles are contained in an arpent in that countrey, and how manie foot are to goe to euerie pole, ſeeing (as wee haue ſaid before) almoſt euerie countrey hath his ſeuerall meaſure: beſides this, hee being well inſtructed and taught in the boundings and limits of the peece of ground which hee would meaſure, he muſt lay aſide, or elſe (at the leaſt) truſſe vp his cloake verie cloſe, and place himſelfe at one of the ends of the plot of ground, wood, or medow, hauing his ſhafts, 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 faſt his Squire vnto the end thereof, and to aſſigne, for his more eaſe, the tenne ſhafts which hee had made faſt vnto the left ſide at his girdle, vnto that place whereas is fixed the little hindge: afterward ſtouping with his head, to take his ſight and view, by ſhutting the one eye, 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 breadth, by the other ſide of the ſaid 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 hee would meaſure. It is true, that hee ſhall need neither ſtaffe nor Squire, if the peece of ground be ſquare, or of a ſmall compaſſe, becauſe that without any ſuch Squire he ſhall be able to diſcerne the forme of the ground: and in ſuch caſes hee ſhall onely vſe the helpe of his ſhafts, which hee ſhall giue vnto his aſſiſtant, and of the chayne, 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 chayne, 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 tenne ſhafts altogether, leauing the eleuenth with the Maſter-meaſurer, to faſten downe in the place where he ſhall begin his meaſuring (if ſo be that the meaſurer doe not chuſe rather, in ſtead thereof, to vſe his ſtaffe:) the ſaid aſſiſtant ſhall hold one of the ends of the chayne by the ring with the great finger of his right hand, 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 hand, at the end of the chayne, as it is ſtretched forth 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 goe on, alwaies carrying the chayne with him, and faſtening the end of the chayne which hee 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 hold 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 ſhafts, which will be ſo

manie

manie or ſo manie poles. This done, both of them ſhall goe vnto two other ends of the ſaid peece of ground, and ſhall doe 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 breadth, 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 meet 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, tenne by tenne, they ſhall haue the totall ſumme of the poles of the Square, which will be a hundred poles, which is one arpent: and ſo hereupon the meaſurer ſhall conclude, that the place doth containe an arpent. Againe, if in caſe that the place were of greater breadth and length than tenne poles ſquare, they ſhall hold on their meaſuring, and paſſe from one end to the other, accounting that which ſhall be more, ſtill reducing all that they meaſure into hundreds of poles, and ſo into arpents. See here the eaſie way for the meaſuring of Land, Woods, and other places of ſmall compaſſe and ſquare, wherein there is no great need of anie Squire: but and if the peece of Land, Wood, or other ſuch place be of great compaſſe and contents, and yet notwithſtanding lying ſtraight on euerie ſide, as of fiue or ſixe hundred arpents, or more, it will ſtand the meaſurer vpon to vſe the helpe of his Squire: wherefore hee ſhall pitch downe his Geometricall ſtaffe at one of the ends of the ſaid peece, and ſhall ſet his Squire to the top of the end of his ſtaffe, and ſhall view the other end of the ground through the holes or lights of the ſaid Squire, if his ſight and largeneſſe of the place will permit him: which if it will not, then onely ſo farre at that time as his ſight may bee conueied: vnto which place directly, whither the direct line of the ſquire doth looke, hee 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 ſaid 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 would not be ſufficient, as thoſe which the ſaid 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 eaſily 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 ſaid vnderwood as may make a way of ſuch widenes, as that the meaſurer and his aſſiſtant may eaſily paſſe. But if this be a wood 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 tenne ſhafts, and ſhall keepe ſtill the eleuenth, or in place thereof vſe his Geometrical ſtaffe (as we haue ſaid before) and ſhall hold one of the ends of the chaine with the great finger of his right hand, as his aſſiſtant ſhall hold the other end in his right hand, and the ten ſhafts all together in the left, to pitch downe one at the end of euerie chaines length, as we haue ſaid before. In this figure you may perceiue how this meaſurer and his aſſiſtant doe performe the thing.

How to reduce all ſorts of grounds into a ſquare for the better meaſuring of it.

BVt as all grounds are not of one forme and faſhion; ſo is it not poſſible that one manner of meaſuring ſhould ſerue to find out the quantitie of euerie peece: and therefore to ſpeake generally, all places and grounds are either ſquare or longer than they be broad, and then they are called ſomewhat longer than broad: but ſtretching right out, or vnequall both in length and bredth, and then they be called ſomewhat long, and ending like a horne, or in the forme of a vvedge, that is to ſay, alike long, but of an vnequall bredth; or of an equall triangle, or of an vnequall triangle; or round, or halfe round, or of the faſhion of a bow, or conſiſting of many corners, or of many faſhions mixt together, or they are incloſed one within another: for the ſure meaſuring of all which places, you muſt reduce them into a ſquare, vvhich is as *Polycletus* his rule for the vvell meaſuring of all grounds and places: the meaſure of ſquare is verie eaſie as vve haue ſaid, that is to ſay, like number of poles on euerie ſide, which conſiſteth of tenne poles to a French arpent, which number being multiplied vvith it ſelfe, which is ten by ten, make the whole ſumme of poles, whereof an arpent conſiſteth, vvhich are a hundred poles, and euerie pole conſiſting of eighteene foot.

If

If then the earth be found by the measuring of the Geometrician, to be more long than 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 forme into a square, you must remember (or else hauing it set downe in writing tables for the better remembrance) what number of poles are in the length, and how many 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 twenty poles, and in the equal bredth of the same ground foure poles, he shall multiplie fiue and twentie by foure, and shall say foure times fiue and twentie are a hundred: this ground then by this multiplication is found to containe a hundred poles, and so by consequent an arpent, at a hundred poles to an arpent, and eighteene foot 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 and bredth be multiplied together, whether it be lesse or amount to more than an arpent, he shall make his accounts and reckoning to fall proportionably, according to the greater or lesse number of poles, as well of the length as of the bredth: as for example, if the measurer haue found in the length of a ground seuen and thirtie poles and a halfe, and in bredth one pole, he shall multiplie thirtie seuen poles and a halfe by one, and shall say that this ground containeth thirtie seuen poles and a halfe, which is a quarter and a halfe of an arpent, at a hundred poles to an arpent, and eighteene foot to euerie pole: by the same meanes, if the ground be seuenteene pole long, and two pole and sixe foot broad, in multiplying seuenteene pole by two pole and sixe foot, he shal find a quarter and a halfe, two pole, three foot of an arpent: after a hundred pole to an arpent, and eighteene foot to a pole.

Grounds that are more long than broad, and yet of an equall length and an equall breadth on euerie side.

If the ground be found by measuring to be vnequall and vnlike, 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 numbers of the two sides, as also those of the two ends, and afterward to reduce the two vnequall lengths, as also the bredths, into an equalitie, in the end multiplying the equall length by the bredth likewise made equall: as for example, if one of the broad ends of the said ground doe containe foure 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 vvhich one of the broad ends is broader than 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 contain his three poles a peece equally. And of the sixe poles wherein the one of the sides doth exceed the other in length, to take also the halfe which is three pole, and to put them to the tenne, so each of the sides vvill be thirteene pole a peece: then afterward to take the number of one bredth (made equall vvith the other, as vve haue said) vvhich is three pole, for to multiplie one length (made equall likewise with the other as we haue said) 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 foot to euerie pole: so then you must follow this rule in euerie thing that is *Balongue cornue*, that is, fashioned after the manner of a horne, that is, that the side and end which are of greatest contents, doe 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.

A ground vnequal and vnlike on all sides, called Balongue cornue, after the fashion of a horne.

If the ground be fashioned like vnto a Wedge, that is to say, equally long on both sides, but hauing one end broader than another; as for example, twentie pole long, and seuen pole broad at the one end, and but three at the other: then you must gather the two breadths together, which will make tenne pole: to take the halfe of them, will be fiue, to multiplie the length withall, in the doing whereof you must count fiue times twentie, and the summe will rise in all to a hundred pole, which make

Ground fashioned like vnto a wedge.

make one arpent, after the rate of a hundred pole to an arpent, and eighteene foot to euerie pole. This is your direct course to measure ground fashioned like vnto a vvedge.

A ground lying triangle-wise.

But if the ground should be triangled, hauing three sides equall, then it is your best vway to follow this course, vvhich is, first of all to learne out how manie poles there are in euerie side, and then carefully to multiplie 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, vvill be the vvhole contents of the poles of that field: as for instance, suppose an equall triangled field, hauing ten pole on each side, I will multiplie the number of the one side by the halfe number of one of the other sides, that is to say, ten by fiue, vvhich is fiftie pole, and containe halfe an arpent, at a hundred poles an arpent, and eighteene foot to euerie pole, and twelue inches euerie foot.

A ground consisting of two triangles.

If the ground haue the fashion of an Oxe head, that is to say, be cast into two triangles equally joyned together, and that euerie side (for example sake) containe twentie poles, I will multiplie the number of the one side by the number of the other side, that is to say, twentie by twentie, and I vvill say that twentie times twentie poles are foure hundred poles, and that foure hundred poles are foure arpents: at a hundred poles to an arpent, eighteene foot to a pole, and twentie inches to a foot.

A ground that is circular or round.

If the ground should proue round like a circle, you must diuide the same round into two diameters; vvhich make foure equall quarters: then you must know the number of the poles of euerie quarter: afterward, to multiplie them vvill be the summe of the whole round compasse of the ground: for example, euerie quarter of the round doth containe twentie poles: vve will multiplie twentie by twentie, and so we shall find foure hundred poles, vvhich make foure arpents vvhich this round shall containe: at a hundred pole to an arpent, eighteene foot to a pole, and twelue inches to a foot.

A ground consisting of many formes and fashions mixt together.

If the ground be of a mixt sort, hauing many formes and shapes, the best vvill be by the meanes of the squire to reduce them all into squares, and then to find out the number of poles in them, and to put the said numbers together. And, if in reducing and bringing of them into foure squared formes, you borrow something, you must restore the number vvhich you haue borrowed in the totall number vvhich you haue gathered, and by this meanes you shall haue the perfect number of your ground.

An inclosed or intangled ground.

And last of all, if so be that your ground be intangled vvithin some other peece of ground, you must measure all together, and afterward taking away the inclosed part, and putting the one asunder from the other, you must measure your owne by it selfe.

Thus haue we briefly set downe that vvhich is to be knowne of the Husbandman, concerning the skill of measuring of lands, and whatsoeuer ground: if he happen vpon any peece of measuring vvorke which is of greater importance than this which I haue mentioned, he must haue recourse vnto the professed skillfull in measuring.

CHAP.

Chap. II.

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 climat that they dwell in: so in like manner one may see the nature and fertilnesse of arable grounds to ingender and bring forth diuers complexions and sorts of ordering of the same more in one place than in another, according as the ground shall be moist and glib, grauelly consisting of fullers clay, brickie, stonie, or free and well natured: vvhich thing did necessarily compell our predecessors inhabitants of this countrie to alter and change the manner of tilling, as also the fashion of the ploughs in France, and the confines of the same, as the high and base countrie of Beaux, the countrie of Normandie, and the confines thereof, Sangterre, Berrie, and Picardie: in like manner high and base Brie, Champagne, Burgongne, Niuernois, Bourbonnois, Rotelois, Forest, Lyonois, Bresse, Sauoye, and againe in the countrie of Auuergne, Languedoc, Solongne (where there groweth no corne but Rie) Bordelais, Rothelais, Vaudomois, Baladois, and generally throughout all the countrie of Languedoc, euen vnto Gascoigne, Biscay, and Bearne, and not to leaue out Prouence and Bretaigne, vvhich 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.

And as it is thus with our Countrie of France, so it is likewise with our neighbour countries, as both in great Brittaine and the Neatherlands, where, according to the alteration of the soyles, so there is found an alteration in their tilling, the East part much differing from the West, and the North from the South, nay euen in one and the selfe same countrie is found much alteration in tillage, as shall be said hereafter.

Of all these sorts of tilling of arable ground vve haue purposed to intreat hereafter in short and easie manner, and that in regard onely of the husbandrie of the true and naturall France, vvhich vve vnderstand to containe all 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, as well neere as those which are furthest off.

Chap. III.

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 whatsoeuer Seyne doth ouerflow, euen to the riuer Oyse both of the one side and of the other, coasting along the riuers of Marne and Aube) it is certaine that it is verie strong and toilesome, as also the earth is found to be well natured, easie to stir, blacke, deepe, lying high when the fallowes come to be ploughed vp, hauing few stones,

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 mankind, if ſo be wee will but giue that which is due vnto Gonneſſe, Louures, Poiſſy, Dampmartin, and vnto Sarcelles, and vnder Eſcouan, and Luſarche: in which Countries, a couple of Horſes, of the price of a hundred or ſixe ſcore crownes a piece, or aboue, doe runne through their worke and husbandrie, without being either called or cried vpon: and they doe but a certaine taske by the day, ſeeing they cannot endure great heat, or raine, ſtrong winds, or froſts, being as loftily and 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 ſhall find it much conſiſting of a Potters clay, and grauellie: in other Countries marſhie, moiſt, ſtonie, flintie, barren, and vninhabited, hillie, full of wilds, ouergrowne with ruſhes and broomes, which and if a man would till for to bring forth corne, he muſt enrich and make the better by ſuch meanes as I haue declared in the firſt Booke.

And as it is with vs in our France, ſo is it likewiſe with all other forraine Countries, each one changing in their husbandrie, as the earth altereth in his nature and qualitie: therefore that the husbandman may know the ſeuerall natures of arable grounds, hee ſhall firſt know, that they alter in tillage according to the mixture or temper of the earth of which it is compounded.

Two ſorts of earth.

To ſpeake then generally of earths, they are two-fold, that is, ſimple, or compound, or looſe, and binding: your ſimple or looſe earths are thoſe which are not mixt with anie earths of a contrarie qualitie, as the fertile black clay, blew clay, the clay which is like marle, and marle it ſelfe, the red ſand, yellow ſand, white ſand, and ſand like vnto duſt: your compound and binding earths are when anie of theſe clayes and ſands equally or vnequally are mixt together, as the blacke clay and red ſand, the white clay and white ſand, or the blacke clay and white ſand, or white clay and red ſand, and ſo of the reſt, howſoeuer they are mixed. Laſtly, there is a grauellie earth which is to be reckoned amongſt theſe compound earths, and is ſometimes looſe, ſometimes binding, according vnto the mixture, and this is a hard grittie ſand, mixt with pebble, flint, or ſhell-ſtone: and it is ſaid to be looſe, when it is drie; and binding, when it is wet.

Seuerall natures of Soyles.

Now for the ſeuerall natures of theſe Soyles, you ſhall know, that the blacke clay is fertile and rich, and apt to bring forth encreaſe, being husbanded and tilled in ſuch ſort, that the mould may runne and breake, for otherwiſe the ſtiffeneſſe takes away the profit: it deſireth no manure, for being ſo rich of it ſelfe, any addition would make it too prowd, and then the corne would either mildew, or by rankeneſſe ſo lye beaten to the earth, that the encreaſe would wither and looſe the fulneſſe. It would be plowed thrice for Wheat, that is, fallowed at May day, Summer-ſtirred at Lammas, and ſowne at Michaelmas. It would be plowed foure times for Barly, that is fallowed and Summer-ſtirred, as aforeſaid, then Winter-rigd at Michaelmas, & ſowne March and Aprill following: it would be plowed but once for Peaſe or Beanes, that is at plow-day, then ſuffered to lye for bait till mid Februarie, then ſowne without any more plowing, and but onely harrowed: for Oats or Rye it is no great friend, yet vvill beare both by carefull husbandrie, Rye in the ſame ſort that it doth Wheat, and Oats, as it doth Barley. Now for the blew clay, the clay like marle, or the marle it ſelfe, they are not fully ſo rich as the blacke mould, and therefore will endure to be manured at all times vvhen your leaſure vvill ſerue, they muſt be plowed in the ſame manner, at the ſame times, and for the ſame ſeeds as you plow the blacke clay, and are alſo no friends to Rie or Oats: for the ſimple ſands, they are by no meanes verie fruitfull for corne, but onely bring forth their increaſe by great labour and trauell; they ſeldome beare Wheat, eſpecially the red or yellow ſand, except they lye neere to the Sea coaſt, or elſe haue ſome other mixture. The corne in which they moſt joy is Rye, and they muſt be plowed foure times for it; that is fallowed in Ianuarie, Summer-ſtirred in Aprill; foyled in Iune, and ſowne at Michaelmas: for Barley it muſt be plowed ſixe times, as fallowed, Summer-ſtirred, and foyled as aforeſaid,

aforesaid, then Winter-rigged at Michaelmas, cast downe in Februarie, and sowne in May; and to speake more generally, these barren, hot, loose earths, vvould seldome lye still, but plowed as oft as leasure vvill giue you leaue; as for beanes or pease they neuer beare any; but for Tare, Fetches and Lupines they vvill beare them, vvith once plowing, vvhich is onely vvhen they are sowne about Aprill. These soyles must be vvonderfully vvell manured, for longer than they haue much heart thereof, they vvill beare no corne at all. Lastly, the grauelly ground of vvhat mixture soeuer it be, is somewhat better for Wheat than these sands, yet Rie is his chiefe seed, and it must in all things be vsed like the sand ground, and vvill beare Wheat vvith the same husbandrie that it beares Rie. Now for the compound or binding earths, they are fertile and barren, according to their mixture, as vvhen the richest clay is mixt with the richest sand, as namely, the blacke clay vvith the red sand, it is then held to be a good ground; so likewise vvhen the vvorst clay is mixt vvith the vvorst sand, as the blew or gray clay vvith the sand vvhich is like dust, then it is held for a verie barren ground, and so consequently of all the rest: and as of these clayes and sands, so also of clayes themselues, as vvhen a blacke clay is mixt with a blew clay, or a marle vvith a gray clay: and so of sands, as vvhen the red is mixt vvith the vvhite, the yellow vvith blacke, or any of all with the grauell: vvherein you shall note, that how much the good soyle is more or lesse than the bad, so much it is more or lesse fertile. Now for the tillage of them, all sands mixt vvith clayes, or clayes vvith clayes, vvill beare any graine, as Wheat, Rie, Maslin, Barley, Oats, or Pease, being husbanded vvell, and throughly manured, onely they must be plowed in such sort as you plow your sands: but sands vvhich are mixt, vvill beare onely Rie, or small pulse, and plowed like the rest beforesaid: to conclude, all clayes naturally are cold and moist, and all sands hot and drie, and the mixed soyles more or lesse according to the mixture thereof.

Chap. IIII.

What space and largenesse Arable grounds would haue.

Now if you desire that your Corne-grounds should be faire to sight, make a goodly shew, be easie to be tilled, and beare plentifully, part them into many peeces cast foure square, and let neuer a one of them exceed in the length of fortie poles, nor yet be lesse than thirtie or fiue and twentie: and, if the inconuenientnesse of the place vvill 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 vvith lesse trauell and vvearisomnesse, 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 plow-man cleanseth and freeth his plow of the earth vvherewith 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 vvill also be the more easie to be plowed, dunged, and sowne: let them be ditched round about, or at the least on the sides, as well to draine away raine-vvater, 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 that the more that corne is shadowed, the further off it is from being comforted and rejoyced by the Sunne, as also from hauing the dust (which is vvoont to lye much vpon it) blowne off by the vvinds, and likewise from being deliuered from

 snow,

ſnow, fogges, and tempeſts, oftentimes a heauie burthen vpon the backe thereof. And yet put caſe that for your pleaſure you vvould plant 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, vvhoſe ſhadow is not onely daungerous and hurtfull vnto the corne ground, but vvhich is more, vvith their great, thicke, and great ſtore of roots, they draw vnto them the beſt juice, they ſucke vp the fat of the earth, and ſo ſteale away the beſt from the ſeed that is ſowne.

Aſhe is hurtful to Corne.

And no leſſe than theſe the Aſhe is moſt poyſonous vnto Corne-grounds, for how farre ſoeuer his ſhadow extendeth, ſo farre you ſhall ſee the ground euer forbeare to proſper, and yet it is not vtterly vnneceſſarie to haue trees grow about your Corne-fields; for if you plant Fruit-trees about them, as the Apple, Peare, Ceruiſe, and ſuch like, you ſhall find the profit many times double the injuries that are reaped from them: neither is it forcibly neceſſarie that your fields ſhould be caſt into theſe ſmall ſquare grounds, ſeeing you may haue them as large as you pleaſe, according to the quantitie of your Farme, or the nature thereof, vvhich may as well lye publique and in common amongſt your neighbours, as priuate and ſeuerall to your ſelfe, in either of vvhich you may make your lands of what length or bredth you pleaſe, vvhether acres, halfe acres, or roods: and herein is ſpecially to be noted, that you

Lands muſt be caſt according to the nature of the ſoyle.

muſt caſt your lands according to the natures of your ground, & not the proſpect of your eye, for if your ground be a gentle earth, either mixt or vnmixt, and lye drie and free all Winter from vvater, neither by any meanes is ſubject from it owne nature or caſualtie to any ſuperfluitie of moiſture, this ground you may lay leuell, ſmooth, and plaine, and make it appeare as an entire garden, or one land, but if it be within any daunger of vvater, or ſubject to a ſpewing and moiſt qualitie; then you ſhall lay your lands high, raiſing vp ridges in the middeſt, and furrowes of one ſide, and according as the moiſture is more or leſſe, ſo you ſhall make the ridges high or low, and the deſcent greater or leſſe: but if your ground, beſides the moiſture, or by meanes of the too much moiſture, be ſubject to much binding, then you ſhall make the lands a great deale leſſe, laying euerie foure or fiue furrowes round like a land, and making a hollowneſſe betweene them, ſo that the earth may be light and drie: and this you muſt doe either vpon leuells, or vpon deſcending and hanging grounds; and to conclude, the larger your fields are, and the drier they are kept, the better they will be, and the better your corne vvill proſper vpon them.

Chap. V.

How often your 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 vve haue alreadie alledged. But howſoeuer the caſe ſtand

The firſt earing of ground, after it hath layen fallow.

in that poynt, and in vvhat plat or peece of ground ſoeuer you can name them to be, it behooueth that at the firſt earing vvhich is giuen them after they haue reſted and laine fallow, that you cleanſe them vvell from ſtones all ouer with rakes, and that at the paines or trauell of ſome young boyes and girles that can doe little or nothing

Vntilled ground.

elſe, or otherwiſe by others: for the earth of it owne nature lying vntilled, begetteth nothing but ſtones, and ſtrong and vnprofitable vveeds, as thoſe which are the reliques of the dung now throughly digeſted, and chaunged by a heat exalted vnto the fifth degree. And we need not make any doubt of it, but that euen good and kind ground, when it ſhould not bring forth any thing but muſtard-ſeed, couch-graſſe, pimpernell,

pimpernell, mercurie, thistles of all sorts, danewort, vvild-fetch, red poppie, vvild oats, veruaine, blew bottles, ax-fetch, or such other like vnprofitable vveeds, without forgetting of cockle and darnell, and that which is called rest-harrow, or at the least some fumitorie and henbane; yet it will be 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 truely containe France. For the distinguishing of these herbes, the thistles shew the heat of the ground, as their aromaticall and odoriferous roots may testifie: the hemlocke, vvild smallage, and fumitorie grow of putrefaction: the bind-weed, both great and small, do proceed partly of drinesse, partly of the alteration of the humour: night-shade the great and small doe spring vp of the cold part of the earth, vvhich they draw from the humour thereof: mercurie of both sorts, eye-bright also of two or three differing flowers, the small sorrell red vnderneath, and the three sorts of plantaine do hold of cold or temperate ground: but the garden and vvater cresses, rockets, wild mustard-seed, as also the two sorts of vvater-parsley haue differing natures, and are more hot, according to the humour vvhich they confesse to participate, in respect of their propertie: To be short, these are certaine dalliances and sports of nature, vvhich (though she should neuer be husbanded in the earth) would (notwithstanding) yet neuer abide idle, or without doing something. It is true, that the couch-grasse, 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 plow and culture (their tyrannous commaunders) doe come. To conclude, these later hearbes being cut and rooted out by oft and deepe plowing, must afterward (especially the thistles) be thwacked and beaten small before the first raine, that so there may nothing of them (yea, no more than 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 and clasp themselues so close to the slime of the earth, as that they vvill thereby againe so enter new possession, that within a short time after they vvill become strong ynough to strangle their mother. Let vs therefore conclude, that the earings of the arable ground are to cleanse it from stones and vveeds, 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 vvith a roller or board to couer it: then after some time vvhen the raine hath fallen vpon it, to plow it for the second earing, which of auncient 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 seed time, to sow, harrow, and pull vp vveedes, vvhich by aboundance of raine, and too much rankenesse of the earth, doe ouergrow and enter commons with the new shot corne. And lastly, to mow and lay it bare and naked, to sheare or cut it downe, to sheaue it and to gather it in. And albeit I here stand much vpon the cleansing of grounds from stones, which is a verie good husbandrie, and for which by a generall consent whole lordships and townesships will joyne together, and make (as they terme them in diuers countries) common daies for common works, yet you must vnderstand that all soyles are not to be cleansed from stones, but only the clayes and sands which haue no generall mixture with stones, but as one would say, here a stone and there a stone scattered seuerally, and not mixt vniuersally; for where the earth and the stones are of one equall mixture, not abounding more in the one than the other, there to take away the stones were to impouerish the ground, and make it bare and vndefensible both against the wind, heat, and cold, as thus, vvhere stones are mixed equally vvith light sands there they keepe the sand firme about the rootes of the Corne, vvhich, should they be taken away, the vvind vvould blow the sand away from the corne, and leaue it drie and bare, by vvhich meanes it vvould neuer sprout; or in those hillie countries where the reflection of the Sunne is verie hot, and the earth light, if the stones being generally mixt should be taken away, that violent heat vvould so scorch and burne the corne, that it vvould seldome or neuer sprout, or neuer prosper: and againe where the countrie is most cold, and most subject to the bitternesse of

Weeds shew what manner of ground it is wherein they grow.

Nature is neuer idle.

The first earing.

The second.

The third.

Stones of great vse in marle grounds.

frosts, there this equall mixture of stones, taking a heat from the Sunne, giues such a warmth to the corne that it prospereth a great deale better, and sooner than otherwise it would: for vvhich cause, stones are many times held amongst Husbandmen to be an excellent manure for arable land, so that I conclude, though in heauie earthes they are most fit to be cleansed away, yet in light soyle they may verie well be suffered, as is to be seene in the Southerly parts of France, and the Westerly parts of great Brittaine.

Chap. V.

The Plow-mans instruments and tooles.

THe carefull and diligent plow-man, long time before he be to begin to eare his ground, shall take good heed, and see that all his tooles and implements, for to be vsed in plowing time, be readie and vvell appointed, that so he may haue them for his vse vvhen need shall be: as namely a waggon or two, according to the greatnesse of the farme, and those of a reasonable good bigge size, and handsome to handle, vvell furnished vvith wheeles, vvhich must be finely bound and nayled, and of a good height, but more behind than before: one or two carres, vvhich may be made longer or shorter, according as the matter, vvhich shall be layed vpon them, shall require: one light and swift cart, the bodie layed vvith plankes, and sufficient strong to beare corne, vvine, vvood, stones, and other matters that are of great vveight: a plow furnished vvith a sharpe culture, and other parts: tumbrills 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: pick-axes to breake small the thicke clods: the roller to breake the little clods: rakes, pick-axes, and mattockes, or other instruments to plucke vp vveeds that are strong and vnprofitable: harrowes and rakes with yron or woodden teeth, to couer the seed 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.

Ploughes of diuerse sorts.

And because the plow is of all instruments belonging to the arable field the principallest, and varieth the oftest according to the variation of climats, I vvill here giue you a little touch of the seuerall plows for euerie seuerall soyle; and first to speake of the composition of plows, it consisteth vpon the beame, the skeath, the head, the hales the spindles, the rest, the shelboard, the plow-foot, the culture, and the share; then the slipe to keepe the plow from wearing, and the arker-staffe to cleanse the plow when it shall be loaden vvith earth or other vild matter. The plow vvhich is most proper for the stiffe blacke clay, would be long, large, and broad, vvith a deepe head, and a square shelboard, so as it may turne vp a great furrow, the culture vvould be long and little or nothing bending, and the share would haue a verie large wing; as for the foot it vvould be long and broad, & so set as it may giue vvay to a great furrow. The plow for the vvhite, blew, or gray clay, vvould not be so large as that for the blacke clay, onely it vvould be somewhat broader in the britch; it hath most commonly but one hale, and that belonging to the left hand, yet it may haue two at your pleasure, the culture vvould be long, and bending, and the share narrow, vvith a vving comming vp to arme and defend the shelboard from vvearing. The plow for the red sand, would be lesse than any before spoken of, more light and more nimble; the culture would be made circular, or much bending like that for the white clay, yet much thinner, and the share vvould be made as it were with a halfe vving, neither so large as that for the black clay, nor so narrow as that for the white clay, but in a meane between both. The plow for the white sand differs nothing from that of the red sand, only it oft hath one addition more, that is, at the further end of the beame there is a paire of round wheeles which

which bearing the beame, vpon a loose mouing axle-tree, being just the length of two furrowes and no more, doth so certainely guide the plow to his true furrow that it can neuer loose land by swaruing, nor take too much land by the greedinesse of the yrons: the culture and share for this plow are like those for the red sand, onely they are a little lesse, the culture being not fully so long, nor so much bent, nor the share so broad, but a little sharper pointed, and this plow also serueth for the grauell howsoeuer mixt, whether with peeble, flint or otherwise. The plow for blacke clay mixt with red sand, and the white clay mixt with white sand, would be made of a middle size betwixt that for the blacke clay, and that for the red sand, being not so huge as the first, nor so slender as the later, but of a meane and competent greatnesse; and so also the culture and share must be made answerable, neither so bigge and streight as the greatest, nor so sharpe and long as the smallest. Lastly, the blacke clay mixt with white sand, and the white clay mixt with red sand, would haue a plow in all points like that for the red sand simple, onely the culture would be more sharpe, long, and bending, and the share so narrow, sharpe, and small, that it should be like a round pike, onely bigge at the setting on.

Thus you see the diuersitie of plowes, and how they serue for euerie seuerall soyle: now it is meet to know the implements belonging to their draught, vvhich if it be Oxen, then there is but the plow cleuise, the teames, the yoakes, and beeles; but if it be Horse, then they are two-fold, as single or double; single, as vvhen they draw in length one horse after another, and then there is needfull but the plow cleuise, and swingle-tree, treates, collers, harnesse, and cart bridles; or double, when they draw two and two together in the beare geares, and then there is needfull the plow, cleuise, and teame, the toastred, the swingle-trees, the treates, the harnesse, the collars, the round withs, or bearing geares, bellie-bands, backe-bands, and bridles. Also, there be of harrowes two kinds, one vvith vvoodden teeth, the other vvith yron teeth: the vvoodden are for all simple clayes, or such as easily breake, and the yron for sands, mixt grounds, or any binding earth, and for new broken swarthes, or such earths as are subject to weeds, or quicke growth: for sleighting tooles, the barke-harrowes vvill serue loose grounds, and the roller those vvhich bind.

Chap. VII.

To cleanse arable ground of stones, weedes, and stubble, the first workes to be done vnto Wheat ground.

BVt to speake more particularly of the dressing and earing of arable grounds that are to be sowne with corne, that is to say, with Rie corne, Maslin, some kind of Barly, Turkie corne, and such others, whereof bread is made, and especially that which the Frenchmen call, for the excellencie thereof, Wheat corne, and the Latines *Frumentum* and *Triticum*: they must haue the stones gathered off in Winter, vpon ground that hath layne fallow: which thing, for to spare cost and charges, may be done by little Iackboyes and girles, which with their hands stouping downe, and filling Maunds and little Baskets, may carrie them into the middest of the high wayes, and into the furrowes and rupes of Carts, or else vnto the end of euerie land, there casting them in some vnprofitable place. And if this worke be done in the height of the Spring, or in the Summer season, it will not be amisse, because it will be much better, and easier treading vpon the lands, and the ardors of the field being then new, the stones will be a great deale the better perceiued: or if this labour be done at the fall of the leafe, it will not be amisse, because it is both the time of the last ardor, and

when the field ſhould be beſt cleanſed, as alſo the fitteſt time to mend and repaire the high waies againſt Winter. The vworke is ſo needfull, as that if the field be not cleanſed from ſtones, though otherwiſe it ſhould be duely and orderly plowed, though otherwiſe it were fat and fruitfull of his owne nature, yet vvould it beare leſſe than any other peece of ground: and on the contrarie, how leane ſoeuer it be, if yet it be cleane vvithall and freed from ſtones, it will not let to bring forth in good and plentifull ſort. Sometimes before the gathering of the ſtones off, ſome vſe to vveed it, and to pull vp by the root the briers, thornes, buſhes, and great hearbes 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 wheat, or other corne, or oats or other graine haue growne, ſo ſoone as the corne it ſelfe is ſhorne and cut downe.

To deſtroy weeds.

And theſe weeds and quickes which grow vpon the arable lands, would be torne vp by the roots vvith a ſharpe harrow, or as ſome husbandmen vſe, pluckt vp by the roots with a paire of vvoodden nippers made for the purpoſe, and this would be done in the Sommer time after euerie great ſhower of raine, for ſo they are vtterly deſtroyed, vvhereas the cutting them vp by the ground doth but abate them for a vvhile, and makes them after ſpring a great deale the faſter: now for to deſtroy thoſe ſmaller roots of vveeds, vvhich lye hidden in the ground, and are vnperceiuable till they doe miſchiefe, you ſhall ſtrike into your plow-reſt many ſharpe dragges, or crooked peeces of yron, moſt directly vnderneath and looking into the earth; and then in plowing of your grounds, where you ſpie a vveed before your plow, there clap downe your reſt vpon it, and it will forthwith teare it vp by the roots, and in one arder or two you ſhall make your ground as cleare of weedes as is poſſible: for I muſt needs diſcommend that manner of vveeding (how generally ſoeuer it be receiued) vvhich is vſed after the corne is ſpindled, for though it taketh away the weed from the eye, yet it ſo bruiſeth and breaketh downe the corne, that the diſcommoditie doubleth and trebleth the profit, neither can the weed ſlay more corne than the feet of the vveeder: vvherefore I vvould wiſh, vvhen extremitie vrges a man to vveed at theſe ill ſeaſons, that he by no meanes ſtep out of the furrow, or ſtriue to cut vp more weeds than he can reach without hurting the corne thereby.

Chap. VIII.

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.

BVt all grounds vvhich are appointed for ſeed or corne ground, whether they be ſuch as are new broken vp, 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, vvith Sheepes dung that is three yeares old, or elſe vvith Cow and Horſe-dung mingled together, for the helping of it to a temperate heat: or vvith other manure ſuch as the ſoyle affoords, or the Farmers yard can breed, and yet although I ſpeake thus of Nouember and December, being a time much vſed vvith vs in France, where the vvaies are faire, the journey little, and the labour eaſie, yet you ſhall know that you may leade your manure either in the Spring, or in Sommer at all ſuch vacant ſeaſons vvhen you cannot follow more neceſſarie labour, as when by vvet or other vveather you cannot lead your hay or corne, then you may lead your manure: for albeit husbandmen hold, that the later you lead your manure, the better, yet it is not good to driue ſo long, for feare of preuention, but to take

What manner of dung muſt be vſed.

take anie fit time or leisure that is offered you through the whole yeare. The dung is to be laid on in hills, little lumpes, 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 chiefely 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 all hot, but he lacketh not a faire forrest of weedes, as reward of his hastie paines: for dung being thus at the first sowne and spread, though it be ouercome afterward; notwithstanding, see what weedes it hath receiued from the beasts houses, as being there scattered, it yeeldeth for his first fruits backe againe vpon the land, and therewithall impaireth much the first crop of corne that shall follow after, howsoeuer others following may prouе more naturall and plentifull by it, and further, hindereth both the ground and hinds 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 Summer, and made manure of in Autumne; and yet manie times not hasting, but deferring the vse for a longer time. Furthermore, they continue and hold it from father to sonne as a receiued veritie, That nothing is more deare and precious than dung, taken in his season, for the enriching of ground.

Nothing more deare than dung.

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 raw, doth likewise remaine vnprofitable, especially the first yeare, doing nothing it selfe, and keeping the better fruit from profiting and comming on as it would; though the second yeare it may helpe well, and hinder nothing.

It is true, that if you would enrich a poore field, that it is better done by the dung newly gathered out of the beasts houses, than with such as is old: and it would bee spread in the new of the Moone, a little before the seed be sowne, prouided yet, that it be then plowed and turned vnder the earth. They seeme vnto me not to doe worst, 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 stead of the first sort of enriching 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 yearely, because of their need to couer their houses, and of hauing litter for their beasts. 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.

The diuersitie of manure.

Stubble seruing in stead of dung

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 yeares space againe: so that for such space he shall gather nothing but Rye in stead of Wheat, and Fetches for Oates, and wild Fetches for kind 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 all, that seemeth vnto me the principall, which is the letting of the field to lye a yeare or two vnoccupied, not ceasing the while to husband it both Winter and Summer: 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-cold, 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 cleanseth it also, and killeth all bad and dangerous weedes: whereupon it commeth to passe, that the harueſt after it is more plentifull, than after anie other dung that a man can inuent to vse. Furthermore, if the ground be light, it will be good to cause some water to ouer-

The first manuring of the ground is the best.

ouerflow the corne for the ſpace of ten daies or thereabout, which will likewiſe ſtand in ſtead of a manuring or dunging.

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 if it bee in ſuch grounds as wherein the chiefeſt kindes of corne are to bee ſowne, then they muſt be dunged preſently after the end of Autumne, that ſo the ground may haue leaſure to receiue the raine therewithall, which will ſerue to help the ſeedes the better to rot, thereby prouiding an aid for the weakenes of the earth. In like ſort, if this ſhould be for Rie, or for Meſling, the ground would be dunged in the heart of Winter, or a little before, notwithſtanding that ſome doe ſtay for the moneth of March, that it may preſently after receiue the ſhowers of Aprill, which may do much good towards the later end of September, at which time they ſowe in fine duſt, and windie drowthes, looking for the firſt raine, and the putrifaction to be wrought by the ſame. But howſoeuer the caſe ſtandeth, ſeeing it is better to manure the ground, than not to manure it; ſo it is better to dung it oft, than 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 weighed; 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 heat doth reſolue and thaw the ſame againe. The drie ground requireth leſſe, becauſe it is hot ynough of it ſelfe by reaſon of his drineſſe: and if you ſhould beſtow great ſtore of dung vpon it, it might be a cauſe to make it burnt. Againe, your exceeding rich and ſtiffe clayes deſire little or no manure at all, becauſe it is ſo rich and fat of it ſelfe, that hauing anie more addition, it preſently mildeweth the corne, and makes the kernell thereof as blacke as ſoot: and therefore the good Husbandman ſayth, That the manure which is beſt for theſe rich ſoyles, is good plowing in due time, and ripening the mould.

How it is naught to dung a ground too much.

To put dung cloſe together. There muſt likewiſe conſideration be had of the goodneſſe of the dung: for good dung would lye faſt and cloſe together for a ſeaſon, and reſt it ſelfe a yeare: if it be elder, it is ſo much the worſe. 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 verie hot. Next vnto this is Aſſes dung, which is the beſt of all beaſts dung, becauſe this beaſt doth chew and eat his meat with great leyſure, 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 Goats: and alike of all others, as Horſes, Mares, Oxen, and Kine. The worſt of all is Swines dung, by reaſon of his great heat, for therewith it preſently burneth the earth. For want of dung, the ſtalkes 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.

The diuerſitie of dung.

There are manie Farmes of which one can keepe neither bird nor beaſt to make dung of: and yet the painefull Farmer, in this ſcarcitie of manure, may make ſome of the leaues of Trees and Thornes, and dyrt, or parings of the earth gathered out of the ſtreetes: hee may alſo take Ferne, and mingle them with the filth and myre of the vtter court: or make a deepe pit, and gather into it aſhes, ſtubble, and ſtumps of hay or ſtraw, the dyrt 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 the midſt of this ditch you muſt ſet a piece of wood of Oake to keepe away Adders and Snakes, that they come not to breed or abide there. If you haue no other but arable grounds, they wil not need, that you ſhould diuide your dung into diuers ſorts: but and if you haue Vineyards, Medowes, and Corne-ground, you muſt lay euerie ſort of dung by it ſelfe, as that which is of Goats and birds muſt be ſtirred euerie ſummer, as if you would digge it with Pick-axes or Spades, to the end it may rot the ſooner, and be better for the ground.

The

The cleanſing of Ponds, Ditches, or ſtanding Lakes, is a compaſſe or manure not inferior to anie before ſpoken of: and Marle may haue preheminence before all, in as much as the beſt before named doth not laſt aboue foure yeares at the moſt; and ſome but two; and ſome but one: yet Marle will keepe the ground rich twentie yeares, and better. All ſorts of aſhes, either of Wood or Coale, is a good manure, chiefely for ground that is apt to chap or riue: So is alſo Lyme, or Chalke, eſpecially for cold ſoyles; yet your Lyme would be ſcattered verie thinne vpon the ſame, and your Chalke layd in greater aboundance. Alſo Sea-ſand is a verie good kind of manure, and both faſteneth a looſe mould, and alſo maketh it a great deale more fertile.

Scyle of Ponds or Ditches.

Chap. IX.

That the ground muſt be plowed ouer according to his three earings before that it be ſowne.

IN tilling and husbanding the earth as it ſhould be, there are three things chiefely required: firſt, a Husbandman, furniſhed with a good vnderſtanding and ripe iudgement: ſecondly, Cattell fitted for the worke: and thirdly, a Plough well appointed and made. But of all other things, it is verie requiſite, that the Husbandman doe know the nature and condition of the earth which he vndertaketh to till, thereof to reape fruit and commoditie, that ſo accordingly he may ſtirre it, and giue it as manie 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 therein, as that the better and fatter earth which is vnderneath, may be turned aboue: whereas to take the ſame courſe in a ground that is barren and leane vnderneath, were altogether vnprofitable. In like manner, there are manie fields, which the more that they are eared and plowed, they become ſo much the more leaner and barrenner: and ſuch are thoſe which haue a light mould, which the oftener 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 manie ſorts of grounds, but by oft earing they become more fruitfull, than and if they were ſeldomer eared: but howſoeuer, Wheat or Meſling eſpecially, doe deſire to haue three earings before they bee ſowne: one, which is called the firſt earing; and it muſt be when as the dung is newly ſpread (otherwiſe the dung would looſe his force, being waſted and conſumed by the heat 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 together one vnto the other, as that a man ſhall hardly perceiue the path or paſſage of the plough: for by this meanes all the rootes of the hearbes 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 be the better receiued into the ground.

But you muſt vnderſtand, that according to the ſituation of the grounds that are good for Corne or Pulſe, as alſo according to the Countrey, mould, and heartineſſe thereof, it is vſed to varie and alter the plowing and tilling of the ground, for the further benefit of the inhabitants: for at Brie, where they haue a ſlipperie and moiſt ground, fit to make pots of for neceſſarie buſineſſe, they plow vpon a cauſey, and as

it

it were vpon an Asses backe: and in euerie fiue furrowes they hold it meete to cast one high ridge, that is verie large, and made also like vnto a causey, that it may both receiue the raine water, and that which springeth out of the earth, which is alwayes moist, and that because of two Riuers lying vpon the one side and on the other, and doe moisten and water the grounds there continually vnderneath.

And for the same purpose (which is also practised in small Beaux, as in Long-boyau, Val de Gallie, Val-boyau, Niuernois, and Bourbonnois) they make at the end of their ground certaine rises of sufficient height: where, betwixt the said rise and arable ground, there is a ditch or pit made within it, after the fashion of a long fatt, to receiue the waters which runne along after great raine: for otherwise they would rot and smother the corne. This troubleth such as traueil those countries, exceedingly: and this is the cause of the name, whereby they are called the Grashoppers of Brie: Insomuch, as that they cannot tell how to doe so well, as in a rainie day to goe and pull vp Darnell, Dane-wort, and other ouer-spreading weedes (which else they could hardly ouercome) being a kind 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 layd bare now and then, yea, and that though it be neuer so well harrowed, and the earth of it selfe strong and mightie.

There is no need of anie such rites or ditches in the parts of France, truly and properly so called, neither in the Isle thereof, nor in the flat and free Countrey of Blairie, as Long-boyau and Labeauce (the verie Barne and Store-house of France) the Countries of Oye, Sangterre, or else of Berry and free Poictou. And all grauellie Countries may be well excused and freed from all manner of such inconuenience, as appeareth by manie places of Picardie and Solongne, euen vnto Percheron: so that they make their furrowes close and neere one to another, as is wont to be done in low grounds and valleyes.

The ground must also be plowed in a fit and conuenient time, to the end that it may become fruitfull: Wherefore the carefull Husbandman shall neuer plow his ground whiles it is wet; for running through it with the plough at that time, it will doe nothing but runne vpon heapes, especially in tough and clammie grounds, as also in those which be hard, or growing and putting forth their fruit, in as much as this maketh them so sad and close, that it is impossible to make them fine and small mould againe. Likewise, it is an absurd thing euer to goe about to put the plough into a dyrtie and myrie ground, because it is nothing fit to stirre or deale anie manner of way withall, before it become drie, and so vnfit, as that though you could doe what you would vnto it with the plough, yet there is no casting of anie seed into it.

And if it should fall out, that there were anie Tree or Vine-plant in the ground, 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 be vpon them: or else you shall cut them off with a hatchet, rather than bruise and breake them with the culter, for feare of breaking the culter it selfe, and putting the Oxen or Horse to trouble and paines.

Chap. X.

That the cattell vsed to plow withall, doe differ according to the manner and custome of the Countries.

IN rough and tough grounds, as also in free and kindly grounds (as hath been said) where there are required as needfull three Horses to a plough of fiftie foot (but not so coupled and spanged, as they be in Countries where they vse to plow with Mares, Oxen, 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 stand in need to be at such cost either with horse or man; for it is not requisite that you should draw so deepe a draught in the earth: and againe, the husbandmen of such Countries haue sooner finished and made an end than others, and yet doe labour with more leisure, because of the ayre and climate of their Countrey. Yet this is but a particular fashion in France: therefore to speak more generally, both according to that and other forraine soyles, you shall vnderstand, that there be two principall causes to make a man plow with Horses, although he may haue Oxen at his pleasure: The one is, when he liueth in a verie wet and dyrtie soyle, where the ground of it selfe yeeldeth forth such a continuall moisture, that the smallest trampling or treading therupon bringeth it to a verie myre; in this case it is best to plow with Horse, because they draw euer directly one after the other, and tread euer in the furrow, without annoying the land, and goe also much more light and nimbly than other cattell; whereas Oxen going double, and treading vpon the land, would foyle it, and make it so myrie, that it would be good for no purpose: The other, when a man liueth farre from his necessarie accommodations, as from his fuell, his fencing, his timber, and other such like necessaries, which he must forcibly vse euerie yeare; in this case he must euer keepe his teame of Horses, because they are fittest for trauell and long iournies, doing them euer with the greatest speed and least losse: whereas the Oxe, being a heauie beast, would soone surfet, and are indeed so vnapt for the same, that a man can hardly doe them greater iniurie. Now for the number of Horses to be vsed in the plow, it must be according to the greatnesse of the labour, and the strength of the cattell: for in the heauie and stiffe clayes, sixe are euer few ynough, either to fallow with, or to plow the Pease-earth with; and foure for anie other ardor: in the lighter sands foure is sufficient at all times, and three vpon anie necessitie. As for the mixt soyles, if they be binding, they will craue as much strength as the clayes: but if they be loose, the same that serues the light sands will serue them also. And herein is to be noted, that the stoned Horse is euer better for the draught than either the Mare or Gelding, yet all good and meet for seruice. Againe, they worke with the Asse and the Oxe, as in Auuergne with the young 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 greater number of them than of Horse. The prouision of Oxen is of lesse charges for diet, buying, and selling againe: whereunto you may adde, that you may eat 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, returne earlier from labor 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 harneis in the Countries where yron and harneis is deere, neither are they subiect vnto so manie maladies, saue that they must be kept from being starued with cold, and from the raine, as also care taken that they be well couered.

Plowing with Horse.

Horses & Oxen of France.

Plowing with Oxen.

This

English Oxe.

This I ſpeake as of our French Oxen, which are not much inured to labour: but if you pleaſe to looke vnto the Engliſh Oxe, you ſhall ſee, that he is the worthieſt creature of all other for the plow, both in reſpect of his conſtancie in labour, and of his long endurance therein; as alſo for his leiſurable and certaine drawing, without ſtarts or twitches, keeping euer one pace, without going faſter or ſlower: whereas the horſe by his courage and fierceneſſe doth, when he is prickt forward, draw ſo raſhly and ſuddenly, that a good hand can hardly, now and then, keepe an euen and direct furrow. Theſe Oxen are fitteſt for thoſe ſoyles which are tough and firme, without anie ſpewing moiſture in them, becauſe (as was before ſaid) they draw double: yet in ſome places, and in moiſt grounds, you ſhall ſee them draw ſingle, like vnto horſes, with open collars, and large hames. Touching the number meet for a Plow, the horſe and they are all one, for ſix Oxen will ſerue well either to fallow or breake vp Peaſe earth, and foure will performe anie other ardor: yet if you will let them haue anie Tytt or meane Iade to goe before them, and lead the way (which will, as it were, eaſe the yoakes from their neckes) it will be a great deale the better, and they will take their labours with much more pleaſure: and howſoeuer our cuſtome is in France, yet they will endure a full daies labour as well as a horſe, prouided that they be driuen temperately and gently: for nothing breedeth ſurfet ſo ſoone in Oxen, as ouer-haſtie driuing, or heating them without diſcretion.

To plow with Aſſes.

I find not anie labour leſſe chargeable than that of Aſſes, ſuch as are to be had in Tabie, Calabrie, Sicile, and in the countrie of Iaffle, being all of them countries where they grow great and faire: for they endure more labor, and are not ſubiect to ſo many diſeaſes, neither are they ſo coſtly to feed. True it is, that they do not ſo much, neither yet altogether ſo well: wherefore they are better to be vſed in leane grounds; except the yong Mule of Auuergne, which exceedeth all other beaſts: but he is troubleſome, hard to be brought to draw, and ſo brainſick, as that there is not the yong 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 young Mule, but a curſt beaſt.

A good Mulet, but a curſt beaſt.

The plowing with Buffles, as is to be ſeene in Romaine, and elſewhere, is good in grounds that are fat, and ſtanding vpon a Potters clay: and are not chargeable in harneis, becauſe that hauing ſo ſhort a necke, they ſtand not in need of anie thing but a ring, to hold and keepe them by the ſnowt: but in Summer they are dangerous, and fall oftentimes into a frenzie, eſpecially when they ſee anie red clothes; and yet notwithſtanding they hold out longer at labour, and are more readie and diligent than the Oxe. Finally, this poore beaſt ſerueth to giue milke, beſides the worke and labor performed by them: as alſo their hide is of much more vſe than that of the Cow or Oxe: for in ſome places Husbandmen doe vſe Mares, Aſſes, ſhee Mules, and Kine, to draw and goe to plow, after the ſame manner that the males doe.

The diuerſitie of Ploughes.

I doe not intend to trouble my ſelfe in this place with the faſhion of the Plough, neither yet with the diuers ſorts thereof, that are found in diuers and ſundry countries: ſo as if you ſhould aske me of the difference betwixt the Ox-plough and the Horſe-plough, I intend not to ſhape you anie further anſwere than this, namely, that according to the loafe, ſo muſt the knife be: euen ſo, according to the force and ſtrength of the ground, ſo you muſt haue your inſtruments and tooles for to cut and till the ſame. Neither will I trouble my ſelfe with examining the faſhions of our ploughs with that deſcribed of *Heſiod*, to ſee whether they be like, or no: no more than 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.

CHAP. XI.

Of clodding and earing it the second and third time, and of sowing of it afterward.

FVrthermore it is meet, after the first earing of Corne-ground, verie diligently to breake and take away clods, and to make the ground plaine and euen, for the better sowing and bestowing of the seed in good proportion and sort vpon the ground: vvhich our common Husbandman vseth to doe in the time called of him the dusting time: Notwithstanding that the inhabitants of Beauce doe not so strictly stand vpon the same: for by reason of the fatnesse of their grounds, they take the time howsoeuer it shapeth, hauing no good assurance of the time, whether it will continue faire, or turne rainie. It is the order and common fashion to breake the clods with the Rowler (vvhich would doe 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 yron, and of a good length. But howsoeuer, you must so labour it, and so oft goe 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 sowne. *To clod the ground.*

Yet for the more certaine clodding of arable grounds, you shall know, that it must be done according to the nature of the soyle, and euer after a good shower of raine, the first which falleth, after the seed is sowne. If the ground be a loose soft mould, and verie apt to breake, then the back-side of your harrowes being runne ouer the lands, vvill be sufficient: but if the earth be more hard and binding, then you shall take the rowler of Wood, for that of Marble is a great deale too heauie, and indeed onely fit for Grasse-grounds, and not Corne-grounds, as also the teeth of the harrow are too sharpe, and teare vp the earth too much: and vvhere the vvoodden rowler vvill not serue, there you shall take clodding-beetles, made of purpose broad and flat, and with them breake the clods so in peeces, that the raine may soften them; & then with your back-harrowes runne ouer them againe: and this is called sleighting, as well as clodding.

Wherefore, after that the clods are well 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 Sunne, neither would there remaine therein anie 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 drinesse doth disaduantage the husbandman amaine, either because the plough cannot enter the ground, or if it enter, yet it cannot breake it small ynough, but turneth vp thicke and broad clods of earth, in such sort, as that afterward it will be hard to plow vp the field againe: for certainely, there cannot be that done which should and is requisite, when the earth is too hard. Wherefore the ground that hath beene plowed in drought, must haue a rainie season found out to be plowed in afterward againe, that so the same being watered and moistened, may be the more easily tilled. *The second earing.*

Yet of the most approuedst husbandmen (for France is not rich in that profession) it is held, that the earth can neuer be plowed too drie, so long as the plow is able to run through the same, and one ardor so gotten, is worth three in the moister weather: besides, the greater that the clods are which arise by plowing thus in drie weather, the greater store of mould you shall haue, which is a good aduantage to the graine, neither will it be anie thing more difficult to plow, if you stay a good season, and haue the earth throughly wet before the next plowing, for these great clods doe neuer arise but in the clay grounds, which are apt to breake with anie moisture.

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 make the ground euen and ſmooth with a harrow preſently after, which ſhall be about the middeſt of October: then you ſhall ſow and beſtow your ſeed vpon the ground in good proportion, but not at anie other time than in the encreaſe 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 ſayth, You muſt ſowe Wheat in myre, and Barly in duſt: and the reaſon is, becauſe that Wheat being hard, and comming neere to the nature of Wood, doth bud and ſprout better and ſooner, when it is layd in ſteepe and mollified in dyrt: or elſe for feare of Piſmires, which if the Wheat ſhould be ſowne in a drie ground, would become lords 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 deferre to ſow, eſpecially in dry grounds: for the corne which is ſowne in dry ground, and well harrowed and couered, doth enioy and keepe the ſame without corrupting as well as if it were in the Garner: and if there follow anie raine, the ſeed will be vp in a day. I preſuppoſe in the meane time, that the Husbandman hath let reſt and lye idle his grounds for ſome two yeares, wherein he is intending to ſow his Wheat, to the end they may bring him a better crop. Furthermore, ſeed-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 ſeed, and to cauſe it to thriue. It is true that in cold places ſeed muſt bee 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 kalends of September, or rather ſooner, to the end that the roots of the corne may be growne ſtrong before that the Winter-raine doe moleſt it, or the Yce and Froſts doe hurt it. Notwithſtanding at what time ſoeuer you ſowe your ſeed, you muſt make diuers conueiances ouerthwart the grounds, and conduits to carrie away the water out of the Corne. Yet this Seed-time is ſpoken but as of Wheat only, or Rie, which are called Winter-cornes: for Peaſe, Beanes, and Pulſe, would bee ſowne in Februarie, and the beginning of March; and Oats and Barley, at the end of March, and beginning of Aprill. Now ſometime the husbandman ſhall haue occaſion to reioice in hope of good ſucceſſe, and ſometime to feare in doubt of the euill ſucceſſe, of his ſeed, by reaſon of the variablenes of the time. Hee ſhall haue good hope of his Seed, if hee ſee the time inclined to ſweet, mild, and not violent ſhowers; and vnto temperate, not exceſſiue and often ſhowers: for the mild ſhowers reſemble the dew; the exceſſiue ones doe moiſten and coole too 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 ſelfe by exhalation, and vvaſting of his fatneſſe, which otherwiſe by vapours would be conſumed: and if alſo the ſaid ſnow in melting doe waſh and water by little and little the earth vvith his pure and ſweet liquor, and (as it vvere) 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 accompanied vvith haile: if laſtly the froſts come in their proper and due time; for if they be too earlie and forward, they burne the young ſprouts; and if too late, they hurt them verie much.

Chap. XII.

Of the choice and quantitie of seed to be sowne.

FOr Wheat to make seed of, the industrious Husbandman shall chuse such as is full, thicke, heauie, firme, and 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 yeare old, which maketh sauourie and well-tasted bread, threshed out of choice and culled eares, which after fanning and winnowing lyeth 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 sowne, as from hill to plaine, and from moist to drie, and yet so contrarie, as that the seed of a bad place be rather sowne in a good place, than the seed of a good place sowne in a bad: for seed, be it neuer so good, doth become worse and degenerate easily, when it is sowne in a bad plot. *The chusing of seed Wheat.*

And for as much as I speake onely of Wheat in this place, being the graine of most vse in Fraunce, you shall vnderstand, that there be diuers kinds thereof, as shall be shewed hereafter; which sith their names are not familiar in other Countries, I will here repeat those which are most in vse amongst our neighbours, especially in England: of which, the first is called whole-straw Wheat, because the straw is whole and entire, not hauing anie hollownesse within it, and this is of all Wheat the largest and goodliest, and yeeldeth the greatest store of flowre, yet not of the most pure and most white colour: it prospereth onely on the rich stiffe clay-grounds, and must necessarily haue three earings before it be sowne. Next vnto it, is the great Pollard Wheat, which hath no aues vpon the eares: it is a large Wheat also, and prospereth likewise vpon stiffe clay-grounds, yet will aske but one earing, because it loues to be sowne vpon Pease-ground, from whence Pease was reaped the same yeare. The next is small Pollard, which loues an indifferent earth, as that which is grauelly, or of barren mixture, and it must haue euer full three earings. Then Ograue Wheat, which loueth anie well-mixt soyle, and will grow either after three earings, or but one, so it be sowne where Pease is reaped. Then flaxen Wheat, which will ioy in anie soyle, except the stiffe clay, or burning sand, prouided that it haue fully three earings, and be well manured. And lastly, Chylter Wheat, which is like vnto flaxen Wheat. *Sorts of Wheat.*

It will be good before you sowe your seed, to lay it in steepe in water some certaine houres, and afterward to spread and lay it abroad somewhere in the shadow to drie, that so it may be readie to rowle or runne at such time as it is to be cast into the earth: by this meanes you shall chuse the fairest cornes that shall stay behind in the bottome of the water, to sowe them, which will grow within three or foure daies: but as for those which swimme aloft aboue the water, they shall be taken away, because they are not worth any thing to sow: for the best vse for such, is either to feed Hennes, or else to grind, that so you may get out euen that small quantitie of meale and flowre that is within them. Some before the sowing of their corne, doe sprinkle it ouer a little with water, wherein haue beene infused Houseleeke, or the stamped seedes and roots of wild Cucumbers, to the end that the corne may not be eaten of Moules, field-Mice, or other such like vermine. Yet howsoeuer this may be a practise in France, it is not receiued generally amongst Husbandmen, to steepe the corne in water, before they sowe it, because so much moisture cooleth and drowneth the kernell of it too much: Nay, they are so farre from the practise thereof, that a well-reputed Husbandman will not suffer his corne to be so much as washed before it be sowne. *Seed degenerate.*

The quantitie of corne which must be sowne, shall be measured and rated according to the peece of ground: for an arpent of fat ground will for the most part take foure bushels of Wheat, a reasonable fat ground will take fiue, and a leane will take more. *How much corn will serue in sowing.*

more. It is true, that there must respect be had vnto the Countrey and place where it is sowne: for in cold Countries and places that are waterie, being also alwaies subiect to Snowes, it is needfull to sowe a great deale more than in hot Countries, or in temperate and drie places, in as much as the cold and Snow doe corrupt the greatest part of the seed. Besides, the time is well to be obserued, and the disposition of the ayre: for in Autumne you must sowe lesse thicke: and in Winter, or the times approaching and comming neere to Winter, a great deale more: againe, in rainie weather you must sowe thicker than in drie weather. Yet in England and other Countries which are much colder than France, two bushels of Wheat or Pease will fully sowe an acre: and foure bushels of Barly, or Oates: and three bushels of Beanes: which proportion no man need to alter vpon anie occasion whatsoeuer.

Chap. XIII.

Of harrowing and weeding of Corne.

PResently after that the seed is bestowed in the ground, you must, for your last worke, harrow it along and crosse ouerthwart, and after that rake it from furrow to furrow, but ouerthwart onely. This would be done with Harrowes, hauing yron teeth rather than woodden 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 doe couer the corne with earth, as it requireth, at the least the thicknesse of foure fingers, that so it may be the faster rooted, and the safer from birds: 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 draynes and draughts, thereby to carrie away the water that falleth in too great aboundance by raine.

Now this manner of harrowing is but for such entire grounds as lye together leuell, plaine, and vndistinguished by lands: for were they cast vp with ridges, as the lands of many Countries are, then could they by no means be harrowed ouerthwart. Therefore wheresoeuer your ground lyes, in lands or in common, mixt amongst your neighbours, there you shall euer harrow your lands directly vp and downe the full length of the lands, beginning at the furrowes first, and so ascending vp to the ridges. As for the Harrowes, as before I said, the woodden Harrow is best for the loose moulds, and the yron Harrowes for the tough and binding moulds. As for the Oxe-harrow, which is as bigge as two Horse-harrowes, and hath euer yron teeth, it is best for the toughest earths, especially new broken vp swarths, the Horse-harrowes going before, and the Oxe-harrow following after.

Oxe-harrow.

When the Spring time is come, and the Wheat hath taken good root, you must weed your ground of such store of weedes, as Winter raine, and the rankness of the earth it selfe, haue caused to abound and ouer-grow the corne, newly put vp, as Fetches, tame and wild, Poppie, Cockle, and such like: and after once hauing weeded it, it will be good to doe it the second time, as when the eare beginneth to shoot: for in so doing, the corne will proue faire and cleane. But in the meane time, you must so weed 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 stand faster in the earth, and grow the more vpward. At the second time of weeding you must not bare it much: for and if the Wheat should not shoot vp still more and more, it would rot vpon the earth, and bring forth nothing. Againe, at the second weeding you shall stirre and make euen the ground a little, that so the corne may not be too close and fast couered at the foot, 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 choaked by weedes, and bowed to the earth by their too much loftinesse,

caking

taking their opportunitie of ſome beating wind or raine. Moreouer, you muſt not be abaſhed, if the greater part of the eares proue emptie, without hauing anie thing at all in them, and the other not to come to perfection and ripeneſſe. 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 filthie weedes: inſomuch, as that three load of ſuch corne, after the winnowing of it, doe not yeeld two of pure and cleane corne. And which is worſe, 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.

Chap. XIIII.

Of mowing, or ſhearing.

THe laſt labour and toyle, for the which all the other in the whole yeare going before, was taken, is mowing and cutting downe of the corne: which muſt be attended, after that it once becommeth ripe; which will appeare, by the turning of the colour into a light yellow throughout, in all parts alike: and before that the graine be altogether hardened and turned red, that ſo it may grow thicker in the weathering and barne, rather than ſtanding in the fields. For it is moſt certaine, that if it be cut downe in good and due ſeaſon, it will grow bigger, and encreaſe afterward: whereas otherwiſe, if you ſtay the mowing or ſhearing of it downe, till it be throughly drie, the greateſt part of the corne will fall to the ground in ſhearing of it, and will become a prey for the birds and other beaſts. If there happen anie violent ſtorme, or whirlewind, it will lay it flat with the earth. You muſt, of all other times, make choice 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 houre, is the breake of the day, when it is full of deaw. The manner of ſhearing, is either to cut it in the middeſt of the ſtraw, to the end you may haue ſtubble to couer your countrey houſes, as alſo to heat the Ouen to bake bread, in ſuch countries as are vnprouided of wood, as in Beauce: or elſe to cut it within a foot 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-bills, made faſt to the end of a great ſtaffe, to make a fire withall for the Winter time: or elſe it ſhall be burned in the fields themſelues, to make dung, by the means of raine falling thereupon, in grounds eſpecially that are ſandie, or ſtanding of a ſtiffe Potters clay, or which haue a ſtrong mould.

The laſt labour.

The time to cut downe Corne.

Stubble.

Straw.

Mats.

And although this be the French manner of ſhearing of Wheat or Rie (for of theſe graines there are no difference) yet in other countries they vſe to ſheare after the Sunne is riſen, and at ſuch time as the corne is moſt drie, holding (as doubtleſſe it is moſt probable) that the binding of the corne together in ſheaues, whileſt the wet deaw is vpon it, doth either rot or make it mildew quickly. As for the ſtubble, it is much better to mowe it downe with Sythes, than cut it vp with Sickles, both becauſe you may goe neerer to the ground, and alſo ſaue much labour, in doing your worke ſooner and better.

Sythes & Sickles.

The corne being cut, ſhall be gathered together and made into ſheaues, and afterled and carried into the barne by the Farmer: which muſt be ſeated in a ſufficient high place, that ſo it may receiue the wind ſomewhat readily: and yet not that I would haue the wind, when it commeth, to be able to goe againſt the houſes, or gardens: for beſides the annoyance which the ſmall chaffe would worke in the eyes of the people, and that before they ſhould perceiue it, it would furthermore

hurt and much annoy the gardens, becauſe that by the ſame ſticking to the leaues of the hearbes 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 Sunne.

Chap. XV.

Of threſhing Corne.

To threſh corne.

FOr the laſt labour of the Husbandman, there remaineth nothing more, but to threſh out the Corne, for to ſow it againe, or for to ſtore vp and lay aſide in the Garner, and this not ſooner than till three months paſſed after the Harueſt: for although the Corne ſhould be gathered of full ripeneſſe, yet ſtill it goeth forward to more perfection as it lyeth in the Barne. The Gaſcoines notwithſtanding fearing, that Corne left long in the ſheaues ſhould not onely take a great heat, but grow full of Butterflies, Mothes, and ſmall Wormes which are wont 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 means they ſtand not in need of Barnes to carrie their ſheaues into, and there to keepe them.

This is alſo a cuſtome vſed both in Ireland, Spaine, and the Iſlands neere vnto Spaine; but I cannot commend the husbandrie: for it is moſt certaine, that except Corne may take a kindly ſweat in the Mowe, it is neuer wholeſome, nor will yeeld flower in that aboundance, which otherwiſe it would do. Beſides, Corne is euer more ſafely kept in the eare than in the Garner, and take much leſſe putrifaction. Whence it comes, that your great Corn-maſters and hoarders of Corn, when they want roome to lay their Corne in, will threſh vp their oldeſt ſtore, and then keepe it in the chaffe till they haue occaſion to vſe it, being of this mind, that whileſt it lyes therein, it will euer keepe ſweet; and it is a moſt certaine rule: for nothing is a greater preſeruer of Corne than the owne chaffe, except it be the eare it ſelfe; in which, Nature hauing at firſt placed it, of neceſſitie it muſt euer be ſafeſt therein. Wherefore I would haue all good husbands to bring their Corne home into the Barne firſt, and there to let it reſt three weekes or a moneth at leaſt, in which time it will haue taken the full ſweat, and then to threſh it, as occaſion ſhall ſerue. And herein is alſo to be noted, that if you ſhall threſh it during the time of ſweating, it will be ſo danke and ſoft, that it will by no means grind or make good flower, except it be dried, which alſo is not held good nor profitable, and eſpecially where it is dried with anie other heat than that which the Sunne yeeldeth, as Kylne, Ouen, Stoue, or ſuch like.

Corne better kept in the eare than in the Garner.

Bad to threſh ſweating corne

The floore to threſh corne vpon.

Before the threſhing of it, you muſt be carefull to prepare the floore, and to ſprinkle it ouer with Oxe bloud, mingled with oyle 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 anie clefts or creuiſes in it, wherein the corne threſhed out may be loſt, or wherein the Piſmires might breed and hide themſelues. The beſt way to threſh it, is with flailes, and after to cleanſe it from the chaffe, husks, and other filth, with the fanne, and laſt of all, to ſift it. In anie caſe leaue not Wheat long in the ſheafe, becauſe it taketh heat, and thereupon becommeth full of Butterflies, Mothes, and ſmall Worms, which eat it vp. In the meane time you muſt not caſt away the chaffe, which is good meat, not onely for horſes and other beaſts, 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 doe make it ſerue to keepe Snow in all Summer: for they make deepe pits in the ground, wherein they put their Snow, and couer it with chaffe.

Chap. XVI.

In what manner the Garners are to be made to put Corne in.

LEt the Garner wherein you ſhall keepe your Wheat, take his light from the Eaſt, and a little ayred from the North and Weſt, but principally from the North-eaſt, which keepeth the Corne alwaies drie, and freſh, and coole: but not from the South, nor from anie ſuch like coaſt or quarters. It ſhall haue manie open holes, by which the whole vapour of the Corne may paſſe forth, and the coole gentle ayre come in: And it muſt not be floored or planked aboue, to the end that the winds may eaſily enter in through the open places and tiles of the roofe, that ſo it may be more freſh and coole at all times. It muſt be placed farre from all moiſture, and other euill ſmells and vnpleaſant ayre, 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 bloud 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 walls muſt be made trimme and dreſſed ouer with mortar tempered in water, wherein hath been ſteeped the roots and leaues of wild Cucumber: or with Lime tempered with Sheepes vrine, which ſhall be of much vſe againſt all kind of ſhrewd beaſts that vſe to eat the corne. And thus much for the French experience. But for the cuſtome of other Countries, it ſhall not be amiſſe to make your Garners of Oaken boards cloſe ioyned together, or elſe lined in the ioynts with Lime and haire, in ſuch wiſe, that no corne may runne through the ſame. Others vſe to keepe their corne in great Hutches, or cheſts of wood, with cloſe couers. But better than anie of theſe it is to make your Garners of Plaſter as large as you ſhall thinke good, for it keepes it moſt coole and ſound, and is the leaſt troubled with Weeuils, Mites, Mice, or ſuch like vermine. Yet to ſpeake truly, and according to the opinion of the beſt Husbandmen, all theſe Garners are more proper for Barly, Oates, Rye, or all ſorts of Pulſe, than for Wheat, becauſe it is a tender graine, and of it ſelfe naturally apt to heat and putrifie, when it is kept cloſe together in great and thicke heapes: and therefore the wiſer Farmers doe vſe to ſpread their Wheat thinne (as not aboue a foot thicke at moſt) vpon the Garne-houſe floore: which floore, if it be of plaſter, it is beſt; boards is the next; and the mudde floore is the worſt of all: and being ſo ſpread, you ſhall not faile to turne it ouer once a weeke at the leaſt, for feare of heating, or growing muſtie. *Wheat Garners*

In the Garner thus fitted, ſhall your corne be layd, being firſt made verie cleane, for the cleaner it is, the leſſe ſubject vvill 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 remoue it often, and to haue about the heapes ſome wild Organie, or the dried leaues of Pomegranat-trees, or Wormewood, or drie Southernwood: or vvhich is better, in the middeſt of ten load of drie Wheat to mingle one of Millet made very cleane: for by the cooleneſſe of the Millet, the Wheat vvill be kept from the vermine and taking of all other manner of heat, and when occaſion requireth, this Millet vvill be eaſily ſifted from the Wheat, by the meanes of a ſieue: and furthermore, that it may ſomewhat encreaſe, you muſt caſt vpon the heapes of corne Sal-nitrum, and the ſcumme thereof, both of them finely powdred, and mixt with verie fine earth. And if it ſhould come to paſſe, that the corne ſhould not proue 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 lumpes of Cummin and ſalt powned, and lay them in the middeſt of the meale. Or if it appeare that Palmer-wormes are bred

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in the corne, or any other ſuch like vermine, by the ouerheating of it, you muſt duſt it by and by with a ſieue, and after ſpread it abroad, and leaue it in the Sunne all the while of the great heat, euen vntill euening, and after that it is become hot thus by the Sunne, and hath beene made verie cleane, carrie it vp againe into the higheſt garner that you haue, and thus the vnnaturall heat thereof will ceaſe, and all the vermine be killed, and the Wheat ſo coole as that it will be out of the danger 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 ſhifts as this, are the cauſe that the ſecond meaſuring is not anſwerable vnto the firſt.

And although I ſpeake here onely of fanning, of vvhich there are two kinds, the one, a fan with looſe clothes like ſailes, which being turned ſwiftly about, gathereth a vvind that will diſperſe the corne from the chaffe; the other made of Wickers, of a great compaſſe, being the one halfe plaine without an edge, the other halfe hauing an edge almoſt a foot deepe, vvhich being turned to the bodie of the man, and caſting the corne to and fro in the ſame, it diſperſeth and driueth the chaffe from the corne; yet the wynowing of corne before the vvind, either betweene your corne-barne-doores, or in any other narrow place where the wind being ſtraitned is made to blow with more violence, is as good, and dreſſeth your corn as cleane as any other way whatſoeuer, and with a great deale leſſe coſt and labour, for that way you ſhall diſpatch more corne in an houre than any other way in three, neither will there remaine in it ſo many ſeeds as by doing otherwiſe.

Wynowing of Corne.

The ſowing and ordering of other ſorts of Graine.

Chap. XVII.

Of Rie.

RIe (called in Latine *Secale*, and of the Auncient Writers *Farrago*) craueth not ſuch an induſtrious & carefull ordering, nor yet ſo fat a ground, and ſo well inriched, as doth the wheat, for it ſo increaſeth in all grounds in ſuch aboundance, that of one bare corne there will come an hundred, be it neuer ſo badly plowed and dunged. Witneſſes hereof are the people of Auergne, Lymoſin, Perigord, and Foreſt, but chiefely thoſe of Beauce, Solongnois, which is abounding in this kind of corne; notwithſtanding that the ground thereof for the moſt part be leane, grauelly, and verie 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 hereby we may learne and take out a new leſſon, namely, that negligence is good for ſomething, and now and then bringeth his commoditie home with it. It is but a verie ſmall and ſtarued graine in reſpect of Wheat, and the bread vvhich is made thereof is vnpleaſant, fattie, ſlymie, heauie, like paſte, blacke, and more profitable in the time of dearth to ſlay and kill the ſharpeneſſe of hunger, in the baſe and ruſticall people, than to feed wholeſomely, 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 with wheat, to the end that the bread

bread made thereof may continue a longer time moist and tender: yea, and which is more, the physitians of the Court doe giue directions for the making of bread of this kind of Corne for Kings and Princes to feed vpon in the beginning of their meales (especially in Summer) to procure them a loose bellie: but they that are carefull of their health, especially such as doe not exercise and toyle their bodies, and students in generall, the Monkes and such like, must auoyd to eat the bread made of the meale of this Corne alone, howsoeuer the plow-Swaine haue this opinion of it, namely, that it maketh the bodie strong; and for certaine it is found by manifest and daily experience that the vvomen of Lyons, Auuergne, and Forest, by the vse of this bread doe become verie faire, and to haue more solide bodies, and more abounding in good and laudable juice or humours, than others commonly haue. Some likewise are of judgement, that the vvater of Rie-bread is more pleasant, and farre better than that of Wheat-bread be it neuer so vvhite. Cookes, vsed to vworke in pastrie, doe make such crusts as they would haue to endure long, of Rie-flower. This bread is made to feed dogges, and to fat swine: all other kinds of cattell, especially hens and horse, do abhorre and loath it altogether: This Corne is verie subject to rust, because it keepeth vvater in the huske or bagge wherein it groweth, the remedie vvhereof 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 vvater, as likewise the meale thereof, to make cataplasmes of, for the suppurating and ripening of impostumes: the decoction of the Corne killeth vvormes, if there be some Coriander-seed put thereto: in like manner horse-leaches doe giue it to horses which are pained in their bellies.

And thus much for the opinion and custome of the French, whose soyle is so frequent vvith Wheat, that they little respect the vse of other graines. But to resort to the better-knowing husbands, and to whose opinions *Seres* and diuers other later Writers agree, you shall vnderstand that Rie is a most excellent graine, pleasant, and sauourie in taste, and verie wholesome to be eaten, in as much as it keepeth the bodie open, and breedeth not that costiuenesse which other graines doe: and although the bread which it maketh, being made of the meale as it commeth from the mill vnsifted and vncleansed, be blacke, and vnlouely to looke on, yet it is verie wholesome, and more sauourie, and better to eat than any bread made of any other graine, except Wheat; nay if it be sifted and cleansed through a fine raunge, searce, or boulter, it makes bread as vvhite, as comely, and much more pleasant to eat than any course or leuened Wheat whatsoeuer. This Rie naturally desireth a warme and drie ground, as especially the red sand, or any clay that is much mingled therewith: it will grow in any clay, and the richer the better, and the corne the larger, prouided, that the mould be loose and gentle: it asketh as many earings as Wheat doth, and must euer be sowne in one and the selfesame time; yet if the ground be any thing good of it selfe, it vvill grow well ynough after one earing, prouided that it be sowne on such ground as Pease were reaped from the same yeare: for Pease (by reason of their running on the ground, and smothering of the weed) is as good as a sleight manuring of the land: Rie is verie quicke of growth, and will sprout in three nights at the furthest; it hath no enemie so much as wet, or extreame raine, so that you must sow it in as drie a time as is possible: for it is a common saying amongst Husbandmen, That Rie vvill be drownd in the hopper, that is, if a showre of raine should but fall in the hopper or seed-basket whilest you were sowing it, that showre would drowne it, and the Rie would hardly grow after: therefore your greatest care must be a faire season, and a drie mould; for the contrarie kills it. *Rie.*

Maslin.

MAslin (called of the Latines *Metellum*) is not one kind of Corne, but a mixture of Wheat and Rie, or of White corne (vvhich the Latines call *Far adoreum*, euen as we shall further declare by and by) and of Rie, in such sort as that these

two kinds of corne mingled, are sowne, 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 maslin, is one of the best sorts of bread, and easie to digest. It seldome or neuer requireth any more than one earing, which is at such time as it is sowne onely, neither is it euer sowne vpon the fallowes, but vpon the Pease-earth, being euer vvell and carefully harrowed: if you find the soyle whereon you sow it to be weake or out of heart, the best meanes to giue it strength is to fold it with sheepe immediatly before you sow it, so that as soone as you take your fold from the land, you may put your plow into the land, by which meanes the seed and the manure as it were meeting together, the manure keepeth the seed so warme, and giues it such comfort, that forthwith it takes root, and brings forth the increase most aboundantly. Now for the cropping or gathering of this Maslin, or blend-corne, you shall euer doe it so soone as you see the Rie begins to open or turne his eare downeward towards the earth, albeit the Wheat seeme a little greenish at the root, and be nothing neere ripe, the corne being soft and milkie; for the Wheat will ripen, and grow hard in the sheafe, which no other corne will doe: and the Rie being suffered but to grow a day beyond his full time, will shed his graine vpon the earth, and you shall loose more than one halfe of your profit: againe, you shall not lead your blend-corne so soone as you doe your cleane Wheat, or your cleane Rie, but making it into good bigge safe stouckes vvhich will shed the raine from the eares, and containing some sixteene or twentie sheaues in a stoucke, you shall suffer it so to stand in the field to ripen, as well for the hardning of the Wheat, as for withering of the greene weeds vvhich growing amongst the Corne will be shorne vp therewith, and bound in the sheaues altogether.

To crop or gather Maslin.

Secourgion.

SEcourgion is a kind of Corne that is verie leane, vvrinckled, and starued, somewhat like vnto Barley, and it is not vsed to be sowne in France, except in the time of famine and dearth, and then also but in some countries as are barren and verie leane, and that to stay the vrgent necessitie of hunger rather than to feed and nourish. It hath his name from the Latine vvords *Succursus gentium*: The greatest part of Perigord and Lymosin 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 seuenth day after that it is sowne, the thicker end running into rootes, and the smaller putting forth the greene grassie blade vvhich flourisheth and groweth out of the earth. The fittest time for the sowing of it, is about the moneth of March in cold places, or about the eight or tenth of Ianuarie, if it be a mild Winter, and not sharpe and pinching. This is that kind of graine of three moneths growth, whereof *Theophrastus* speaketh in his Booke of Plants, howsoeuer *Columella* doe not acknowledge any kind of graine of that age. *Theophrastus* in like manner maketh mention of a kind of graine of threescore dayes or two moneths growth, and of another of fortie daies growth. I heare say that in the West-Indies about Florida there grow sorts of corne, some of two, some of three moneths, and some of fortie daies: vve see it verie ordinarie in France to haue corne in three moneths, namely, in the countries of Beauce, Touraine, Lyonnoise, Sauoy, Auuergne, Forest, Prouence, Chartrain, and others, in which the corne being sowne in March is ripe and readie to be cut downe in the third moneth. The occasion of sowing it so late is either the vvaters or excessiue cold, or snow, or some such other hard vveather, vvhich kept and hindered it from being sowne any sooner. Such graines and sorts of corne as are of three or two moneths, or of fortie daies, and amongst them especially the Secourgeon, doe yeeld a verie vvhite and light flowre, because it hath but verie little bran, and the graine hauing drawne verie small store of substance for his nourishment, but such as is of the lightest

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 verie white, but withall verie light, and of ſmall ſubſtance, more fit for Countrie-people and ſeruants in Families than for Maiſters and vvealthie perſons: Againe, in countries where it is of account, they vſe to mixe Wheat vvith it, to make houſhold-bread.

Blanche.

BLanche is a kind of Wheat which the Latines call *Far clufinum*, and old Writers *Far adoreum*, as a Corne or Graine worthie to be highly thought and made of for his excellencie and goodneſſe ſake: it is verie hard and thicke, and requireth a ſtrong and tough ground, though it be not all of the beſt husbanded. It groweth alſo verie wel in places and Countries that are verie cold, as not fearing any cold be it neuer ſo outragious: Neither doth it miſlike and refuſe drie and parched grounds, and ſuch as lye open to the exceſſiue heat of Sommer; the Corne cannot be driuen from his huske, except it be fried or parched: againe, for to grind and make bread of it, they vſe to frie or parch it, but vvhen they vſe to ſow it, they let it alone vvith the huske, and in it they keepe it for ſeed. It is verie maſſie and vveightie, but not altogether ſo much as Wheat, but yet more cleane and pure than Wheat, and alſo yeeldeth more flowre and branne than any one ſort of Wheat beſides. This kind of Wheat is verie rare in France, but verie common in Italie, vvhere it is called *Sacidata*.

Fine Wheat, or Winter-wheat.

THere is a kind of ſmall Corne that is verie vvhite, vvhich the Latines call *Siligo*, vvhereof is made White-bread, called therefore of the Latines *Siliginitis*. The French cannot as yet fit it with a name. It muſt be ſowne in verie 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, ſlymie, 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 vvithall, that if a man vſe to ſow Wheat in a moiſt and muddie ground, that after the third ſowing it will degenerate into this kind of Wheat. It is that kind of Wheat which amongſt the Engliſh is called Flaxen-wheat, being as vvhite or vvhiter than the fineſt Flax: it is of all ſorts of Wheat the hardeſt, and vvill indure a more barren and hard ground than any other Wheat vvill, as the grauellie, the flintie, ſtonie, and rough hils againſt which by the reflection of the Sunne onely (vvhoſe beames it loueth exceedingly) it will grow verie aboundantly, neither will it proſper vpon any rich ſoyle, but being as it were ouercome vvith the ſtrength thereof, it will vvither, or not grow at all, or elſe mil-dew, turne blacke, and become altogether vſeleſſe.

Amel-corne.

THere is yet another kind of Corne, vvhich the Grecians and Latines call *Olyra*, of a middle ſize betwixt Wheat and Barlie, vnlike altogether vnto Winter-vvheat vvhereof we laſt ſpake, but of a ſort and faculti like vnto ſpelt, whereof vve vvill ſpeake next in order. Of this graine *Dioſcorides* maketh mention, and *Matthiolus* calleth it in French *Seigle-blanche*: the tilling and ordering of it is like vnto that of ſpelt. There is verie vvhite bread made thereof: there is but ſmall ſtore thereof in France.

Spelt-

Spelt-corne.

SPelt-corne is that vvhich the Latines call *Zea*, and hereof the auncient Romans did make great account, and gaue it to name *Semen*, by the way of excellencie, as the Italians in such places as vvhere the said Spelt groweth in great aboundance, doe call it *Biada*. The Graine is lesse, and blacker than Wheat. It is found sometime single, sometime double in an eare set with a long beard. It must be sowne in a verie strong and hard ground, for otherwise it will not thriue, neither is there any sort of Wheat 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 kind of Furmentie.

Course Wheat-flowre: or fine Wheat-meale.

COurse Wheat-flowre is that which of the Latines is called *Similago*, and is made of Wheat that is excellent good, hauing the greatest Bran onely sifted from it, but being ground of the best Mill that may be gotten, howsoeuer the French name *Semole* vvhich seemeth to be deriued from these Latine ones *Sine mola*, may seeme to argue the contrarie. We haue not any of the Corne in this Countrie vvhereof the *Semole* is made: but in Prouence it is sowne in great quantitie: as also in Champanie, and in the Countrie of Naples, and from thence there is great store of this fine meale brought, vvhich Physitians doe prescribe to their sicke patients to make Panade or pap-meat of, vvith the broth of a Capon, notwithstanding that *Galen* and the greatest part of Physicions doe affirme, that the fine meale called of the French *Semole*, is of a grosse and slimie iuice, and not digested without difficultie, and thereupon injurious to such as haue need 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 steed of *Semole* vve vse Maslin; and as concerning the Wheat vvhereof the course flowre *Semole* is made, it craueth such ground and manner of husbanding as Maslin doth.

Furmentie.

FVrmentie is that vvhich the Latines call *Alica* or *Chondrus*, and it is a kind of Wheat, whereof (after that it hath beene steeped for some time in vvater, and afterward brayed and husked, and then in the end dried againe in the Sunne and ground somewhat grosly) is made a kind of grosse meale, resembling oatmeale verie much, vvhereof sometimes is vvoont to be made pap-meat, sometimes it is mixt in meat-broth, and sometimes panade vvithall: all which meats, to say the truth, doe nourish a great deale more than they profit the health of the bodie, in as much as they ingender a thicke, clammie, and grosse juice, verie hurtfull for them that are subject vnto obstructions, or vnto the stone and grauell.

Turkie-Wheat.

TVrkie-wheat (so called, or rather Indian wheat, because it came first from the West-Indies into Turkie, and from thence into France, not that it is sowed there any otherwise than for pleasure, or for to cause some admiration at the strange things which Frenchmen themselues doe admire and make much account of) must be sowne verie carefully after this manner: the field must be diligently tilled according to all the sorts of earings vvhich 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 said wheat must be steeped in water two whole daies, and when this is done, to keepe it till the earth

receiue

receiue some prettie showres: vvhich happening, then presently to open the earth vvith some sharpe stake, and that all along as streight as a line, but with equall and sufficient distances: and to cast into euerie one of these holes foure or fiue graines of this vvheat, and by and by to close in the earth againe vvith your foot, and so in this sort to fill and set a vvhole field with this Corne. If the earth be fat, and the seed full and well fed, it will not faile to sprout within seuen daies, and to be ready to mow within fortie daies, two moneths, three moneths, or at the furthest foure moneths, sooner or later according to the goodnesse of the ground, and power of the Sunne, that is to say, earlier in a hot 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 vvheat hath, but somewhat more hot, as may easily be gathered by the sweetnesse of the bread that is made thereof: the meale thereof is vvhiter than that which is made of our wheat, but the bread made thereof is more grosse, thicke, or close, and of a more slymie substance, in such sort as that the nourishment made thereof is likewise more grosse, and apter to ingender obstructions; vvherefore if the dearth of vvheat and famine doe force and compel you to sow of this Turkish-wheat, to make bread thereof, it will doe better if you mingle it with the flower of our vvheat, than and if you should vse it by it selfe all alone. The meale of this vvheat 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 clamminesse, it cannot chuse but worke such effect.

Sarasins-wheat.

SArasins-wheat is a graine verie ordinarie and common throughout all France, and more abounding vvithout comparison than the foresaid Turkie-wheat: it must be sowne in all manner of grounds, because it refuseth not to grow in any, vvhether it be grauelly, or of any other qualities vvhatsoeuer, and that especially in Aprill in hot places, or somewhat later in those that are cold, and it is so forward and hastie, as that it will ripen twice, and yeeld you two crops in a yeare, in one and the same ground, being in a hot ground, as is to be seene in Italie. It may be mowne at the end of three moneths after it is sown: in this countrie 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 countrie vvheat. It may be made into grosse meale, euen as the grain called furmentie, but better without comparison than that of millet to be imployed in meat-broths, in panades and pap-meats, as also to make tartes with cheese and butter. This is a meat that is pleasant ynough, 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.

Goats wheat, and Typh wheat.

THere are yet remaining two other sorts of Wheat, which the Latines call *Tragos Cerealis*, and *Typha Cerealis*, whereof *Dioscorides* and *Galen* doe make mention. Typh wheat is verie like to our Rie, and doth make a verie blacke bread, and verie vnpleasant also when it is old, though it be otherwise verie pleasant when it is new baked, after the manner of Rie. The Goats wheat is not verie 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 bellie than to feed or nourish it. These wheats are not so much as to be seene in France, and therefore I meane not to make any longer discourse thereof.

Of all manner of March-Corne.

Chap. XVIII.

Barley.

Barley.

AFter that vve haue thus largely ſpoken of Wheat and other Corne, it remaineth that vve ſhould conſequently ſpeake of all manner of pulſe: the ordering and husbanding vvhereof, 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, and third earing, as alſo in clodding, ſowing, harrowing, and mowing: but differing notwithſtanding in ſome things, as namely, in their nature; and therefore it will be beſt to make a particular deſcription thereof; eſpecially of Barley, which howſoeuer it is of ſleight vſe in France, becauſe of the great profit of the vine, and the plentie of Wheat in which the kingdome aboundeth, yet in other Countries it is of beſt reſpect, eſpecially in England, vvhere the greateſt ſort doth grow, and where they make Beere thereof ſo good and excellent, that not any French Wine is more pleaſant, or more wholeſome. Therefore to ſpeake firſt of Barley, according to the opinion of the French husbandman, vvhich is not to be held moſt authenticall.

Barley muſt be ſowne in a leane, drie, and ſmall ground, or elſe in a ground that is verie fat throughout, becauſe it doth bring downe and diminiſh the fatneſſe of a ground mightily: and for that cauſe it is either caſt into the ground that is verie fat, the force and goodneſſe vvhereof it ſhall not be able to hurt: or into a leane ground, vvherein a man ſhould not ſow any thing elſe ſo well. It muſt be ſowne 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 S. *Georges* day you muſt ſow your Barley, and lay your Oats away) if the ground be fat, but and if it be in a leane ground, it muſt be ſowne ſooner, not ſtaying for any raine, in as much as that according to the prouerbe, Wheat muſt be ſowne in dyrt, and Barley in duſt: for Barley cannot endure any great ſtore of moiſture, being of it ſelfe drie, open, and cold: againe, Barley being ſowne in moiſt places, and much watered vvith raine-water, doth eaſily canker, and turne into darnell and oats: 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 mow it ſooner than any other corne: for it hath a brittle ſtalke or ſtraw which is verie apt to breake, when it is verie drie, and the corne being but weakely incloſed vvithin his huske, doth eaſily and of it ſelfe fall vnto the earth: and hence alſo it becommeth more eaſie to threſh and ſhake out, than any other graine. After the corne is mowne, it will be good to let the earth lye ydle a yeare, or elſe to manure it throughly, and ſo to take away all the euill qualitie that is remayning and left behind. In a deere yeare it is vſuall to make bread of barley, as vve ſhall declare hereafter, and that better for the poore people than for the rich, and yet in one point to be praiſed, in as much as it is good & wholeſome for them that haue the gout: the aſſured truth vvhereof, is found out rather by experience than reaſon. Notwithſtanding in as much as Barley (as *Galen* teacheth) vvhether it be in bread or in pap-meat, in ptiſanes, in mundified barley, or otherwiſe imployed, doth coole, and yeeld a thinne kind of nouriſhment, and ſomewhat cleanſeth the bodie, in that reſpect it may be profitable for them that haue the gout, as thoſe that are full of humours, and ſubject to diſtillations falling downe vpon the mints.

Barley-bread.

There

There is made of Barlie a certaine kind of drinke, vvhich is commonly called aptisane, and a meat that is good for sicke persons, called mundified barley, which the good vvife of the Farme may make in this sort: Take barley well cleansed and husked, boyle it till it burst, and till it become like vnto a pap-meat, after beat it in a morter, and when you haue so done, straine it through a verie fine strayner, put vnto it sugar, or the juice of sweet almonds, or of poppie-seed, melons, or lettuses, according as occasion shall be offered. Or else, Take of the best and newest barley, put it in a mortar, and cast vpon it warme vvater, as it vvere to wet it, but not to make it swim, afterward beat it gently with a vvoodden pestell, in such sort as that the huske that couereth it may be forced off, then chafe it betwixt your hands, that so you may free it quite from huskes; then afterward drie it in the Sunne: vvhen you haue this done, take a handfull of the said barly, and put it in a pot, vvhich it may fill to the halfe, and filling vp the other halfe with vvater, let it boyle by little and little vntill such time as it be burst, and become like pap-meat, let it run through a linnen cloth, and so straine out the juice. *Mundified Barley.*

Thus much for the French opinion of Barley: but to come to the true knowledge thereof, from the opinions of those that are better experienced in the same, you shall vnderstand that Barley ought to be sowne vpon the best, richest, and best husbanded ground you haue, and although it will grow in any soyle whatsoeuer that is vvell husbanded, not being too extreame cold and moist, yet the better the earth is into which you sow it, the better and the larger the corne is vvhen it groweth, and much more seruiceable for any vse you shall please to imploy it. That Barley which groweth on the stiffe clayes is the best, being large, white, and full like a Buntings beake. That which growes on the mixt soyle, is the second best: and that which groweth on the sands, is the vvorst. Barley asketh the greatest tillage of all graines, because it must euer lye in a loose and gentle earth, and therefore when it hath least it ought to haue full foure earings before it be sowne, as in the fertile rich clayes, it must first be fallowed at the later end of April (for to stay till May the ground may be too drie) and this arder of fallowing must cast downe the ground, that is to say, the furrowes must be all turned downe from the ridge, and the ridge left open, so as the earth must receiue seasoning: At mid-May you shall manure it, and in Iune you shall giue it the second earing, which is called Sommer-stirring, and in this ardor you shall set vp the land, that is, you shall plow all the furrows vpward toward the ridge of the land, closing vp that which was before opened, and lapping in the manure into the earth in such wise that not any thereof be vncouered; then at August you shall giue it the third ardor or earing, vvhich is called foyling, and that is to cast the land downe againe, as you did vvhen you fallowed it, and this ardor is of all other one of the best, especially for the destroying of weeds and thistles; then in October you shall giue it the fourth ardor or earing, vvhich is called Winter-ridging, and in that ardor you shall euer set vp the land againe, as you did at the Sommer-stirring; and then in March and Aprill following, you shall sow it. Now touching the manner of sowing of these stiffe clayes, you shall first make your seedes-man cast his seed ouer the land, in such sufficient manner as you shall thinke meet: then taking the plow, and beginning in the furrow, you shall cast the land downeward ouer the seed, till you haue plowed all the land, and left onely the ridge open, then holding the plow crosswise ouerthwart the ridge, you shall close the ridge, and draw the mould into it, then you shall make your seedes-man cast another cast or two of the seed vpon the ridge onely, and then harrow it with woodden toothed harrowes, and this manner of sowing is called sowing vnder furrow. Now whereas I haue shewed you in the plowing of your land, that you must first cast downe your land, then ridge it vp, then foyle it downe, and lastly, set it vp for the whole Winter following: you shall vnderstand that it is the best and most orderliest husbanding of land, breedeth the greatest plentie of mould, and couereth the manure closest, and maketh it soonest rot in the earth; yet notwithstanding for as much as Barley is a tender graine, and may by no meanes indure any cold or vvet, if you find that your lands doe lye too flat, *How Barley ought to bee sowne.*

ſo that the Water cannot deſcend from them, but either choaketh them, or keepes them too vvet, then you ſhall ſet vp your land, and not caſt it downe in any ardor till you haue brought it to that conuenient height that the vvater may haue free paſſage from the ſame; and ſo on the contrarie part, vvhen your lands lye too high, you ſhall caſt the furrowes downeward, vntill you haue brought them to that lowneſſe vvhich ſhall be conuenient; and vvhen you haue ſo done, then you ſhall caſt them downe, and ſet them vp againe in ſuch order as hath beene before mentioned. There is alſo another maner of ſowing of barley vpon theſe fertile and rich grounds, vvhich is called ſowing vpon the Iunames, that is, to ſow barley on the ſame ground from vvhence but the harueſt before you reapt your Barley, and it muſt be done in this ſort; as ſoone as you haue reaped your barley, vvhich is commonly in Auguſt, you ſhall forthwith (if the ground doe require it) manure as much as you intend to ſow Barley againe vpon, and as ſoone as you haue manured it, immediatly (if the ground be not too hard) you ſhall plow it, either ſetting it vp, or caſting it downe, as the land ſhall require; or if it be too hard, then you ſhall ſtay for a ſhowre of raine, yet the drier it is plowed, the better it is both for the land and the corne: the land being thus plowed, you ſhall let it lye till Nouember, and then you ſhall plow it againe, but in this earing you ſhall by all meanes ſet it vp, and not caſt downe the land, and ſo let it lye till ſeed-time, and then ſow it vnder furrow as was before ſhewed. This barley vvhich groweth thus vpon the Iunames is the faireſt, vvhiteſt, and goodlieſt Corne of all other, and is the onely principall Corne you can reſerue for ſeed of all other; and therefore you muſt haue a great regard to the election of the barley you thus ſow vpon the junames: for the ſowing of Barley vpon any mixt earths, or haſell-grounds, vvhich are clayes and ſands, or clayes and grauells mixt together, you ſhall husband the grounds in all poynts as you doe the clay-grounds, onely you ſhall differ in the times, for theſe mixt earths muſt be fallowed in Ianuarie, Sommer-ſtirred in May, foyled in Auguſt, and Winter-rigged in October: as for the ſowing of them, you ſhall not ſow them vnder furrow, but aloft, becauſe they are of binding natures; ſo that after the ſowing ſhould any ſodaine raine fall, and then a drineſſe follow it, it would ſo bake the earth together, that the Corne vvould not poſſible be able to ſprout through it; and therefore (as I before ſaid) you ſhall ſow it aloft, that is to ſay, you ſhall firſt plow it, beginning at the ridge, and ſetting the furrowes vpward, then caſt on your ſeed, and laſtly harrow it. Now for ſowing Barley vpon ſand-grounds, you ſhall husband it like vnto the mixt earths, onely you ſhall giue it an earing more, that is to ſay, a double foyling, and you ſhall forbeare to ſow it till it be about Whitſontide, for the heat of the ſand is ſo great, that it vvill make the Corne verie ſwift in growth, and ripen verie ſodainely. Barley, in vvhat ſoyle ſoeuer it is ſowne, muſt be exceeding vvell ſleighted, clotted, ſtoned, and vveeded, for it is ſo verie tender in the growth, that the ſmalleſt clot or ſtone will keepe it backe, and the leaſt vveed vvill choake it. Barley is of moſt pretious eſtimation vvith all thoſe vvhich know the true vſe thereof, eſpecially for the making of mault, of vvhich is made Ale or Beere, drinkes ſo vvholeſome and excellent for mans bodie, that no nation vvhich doth enjoy it, hath any bleſſing to preferre before it: as touching the order of making of malt, it is in this ſort, firſt after your barley hath beene cleane vvinowed and dreſt, you ſhall put it into a ceſterne or fat made for the purpoſe, and there ſteepe it in vvater the ſpace of three nights, then draine the vvater from it cleane, and ſo let it lye in the fat one night more, then take it forth of the fat, and lay it vpon a floore made either of boards, plaſter, or earth: the earth floore is vvarmeſt, and beſt for Winter, the plaſter floore is coldeſt and beſt for Sommer, and the boarded floore is betweene both: as ſoone as you haue laied it on the floore, you ſhall make it into a great big couch or heape a yard thicke or better; vvhich couch you ſhall make either long, round, or ſquare at your pleaſure, and according to the quantitie of your corne, it ſhall thus lye in the couch till you ſee it begin to ſprout and put forth little white jags or ſtrings vvhich is called the coming of the malt, and then you ſhall reane and turn it, bringing that vvhich was the out-ſide into the midſt,

Iunames.

Barley.

Malt.

and

and that which vvas in the middeſt vnto the out-ſide, that ſo it may come all alike, for that which is in the middeſt, and lieth warmeſt, vvill euer come the firſt. Now ſo ſoone as you ſee it is all comed, you ſhall forthwith ſpread open your coutch vpon the floore, laying it not aboue a handfull deepe at the moſt, that ſo the corne may coole, and not ſprout or come any further, not forgetting but euerie day the ſpace of three vveekes, or vvithin three dayes of three weekes at the leaſt, to turne the malt vpon the floore twice or thrice a day, leaſt forbearing ſo to doe, the corne heat, and by that meanes aker-ſpire, vvhich is, to ſprout at both ends, and ſo looſe the heart of the graine, and make the malt good for nothing. When you haue thus giuen it full (fat and floore) three weekes, then you ſhall lay it on a vvell-bedded kilne vpon a good haire cloth, and there with a gentle fire drie it: the beſt fewell to make this fire on, is ſtraw, either Wheat, Rie, or Barley. Braken or Ferne is good alſo, gorſſe is too ſharpe, and vvood is the vworſt of all, for it leaueth (through the ſharpeneſſe of the ſmoake) an ill taſte or ſauour vpon the malt, yet here in France there be kilnes made of Bricke, vvith ſuch furnaces that carrie away the ſmoake, that you may burne what fewell you pleaſe vvithout annoyance, neither are they ſo dangerous for the caſualtie of fire, as the other plaine kilnes in England and other places are. After your malt is vvell dried, you ſhall with your hands rubbe it well vpon the kilne, to get off the come or ſproutings vvhich before the drying did ſticke vnto it; for it is a generall rule, that the cleaner your malt is from come, and the ſnugger and ſmoother it lookes like Barley (prouided it be well malted) the better it is, and euermore the more marketable: for the come is of this nature, to drinke vp the liquor in vvhich your malt is maſhed, vvhen you make Beare or Ale, and ſo by that meanes to ſcant you much of your proportion. When your malt hath beene well rubbed, and is reaſonable cleane, then you ſhall ſhouell both the malt and the corne together, and ſo put them together into a cloſe garner made for the purpoſe, vvhere you ſhall let it lye at leaſt a moneth or ſix weekes before you vſe it to ripen in the come, for that makes euer the beſt yeelding malt: then when you pleaſe to vſe it, you ſhall either winow it, or trie it through a skreene made of wiers for the purpoſe, and then grind it, and brew it as occaſion ſhall ſerue. Now touching the choyce of the beſt malt, you ſhal euer take that which is made of beſt and cleaneſt corne without weed-ſeeds, tare, or like filthineſſe; yet if it haue here and there an oat it is the better, and not the worſe: it ſhall to your eye appeare bright, white, full, and cleane without come, in ſmell it ſhal be pleaſant and ſweet, and not ſharpe of the ſmoake, in handling it ſhal be brittle and apt to breake, and the kernell ſhall be white and meallie, and in taſte it ſhall be ſtrong, and exceeding ſweet, and the graines which you ſhall champe in your mouth, if you take them forth, and preſſe them betweene your fingers, they ſhall yeeld you a white juice like milke, but thicke and luſcious: but if in the biting or breaking they be hard and vnapt to bruiſe, then it is a ſigne that there is in it much barley vnmalted, and ſo the malt of a great deale the leſſe profit. Barley as it is thus moſt excellent for the making of drinke, ſo it is good alſo for bread, but not of the French maner, which maketh bread thereof ſimple of it ſelfe, for indeed that bread of all other is leaſt nouriſhing, and moſt vnſauourie: but to mix it with any other graine, as with wheat, rye, peaſe, or beans, with any one or with all of them, it maketh verie good & moſt wholeſome bread: it is vſed in England moſt for hind-ſeruants, adding to a buſhel of it, and a buſhell of peaſe, one pecke of wheat, and another of rie, and then laying it in ſtrong leuen, and ſcalding the meale well, to take away the ſtrong ſmell of the peaſe, and ſure this is a verie ſtrong and well-reliſhed bread, and moſt wholeſome for any man that ſhall labour hard, as is found by experience in England and other places. This barley being boyled in water till it breake, and ſo giuen to eat whileſt it is ſweet, is the beſt food that can be for the feeding or fatting of ſwine of all ſorts, whether they be brawnes, or porkets, or bacon-hogges: it alſo fatteth a horſe verie ſodainely, but ſuch fat will not indure labour: the light corne, or hinder ends of barley, are excellent for the feeding of all ſorts of poultrie, as capons, hennes, turkies, geeſe, or what elſe ſtrayeth about the Farmers yard or houſe: a leuen made of cleane barley-meale,

and milke is the beſt food that can be for the cramming of all ſorts of poultrie; many other vertues are in Barley, but none of greater vſe than theſe alreadie rehearſed.

Oats. Oats notwithſtanding that they grow amongſt Wheat and Barley without being ſowne, as an euill 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 kind of husbanding. They loue to be ſowne in leane places, which are drie, well aired, and haue beene alreadie twice eared, and that in Februarie, or March, but not later: they craue vvatering, and then they grow both fairer, and fuller ſet. They muſt be gathered preſently after that Rie and Barley are in.

Oat-meale. Although Oats be not vſed to make bread of, except it be in the time of great dearth, notwithſtanding ſome doe beat them in a morter, and doe make a meale thereof called Oat-meale, vvhich is boyled either alone, or elſe with fleſh, to vſe in manner of a panade. Phyſitians are of judgement that Oat-meale ſo made doth feed verie vvell, and is good againſt the grauell and difficultie of vrine: for the truth vvhereof, I referre you to the Britaines and Angeuines, which vſe it for the ſame effects. When it is boyled all alone, for the making of it the more pleaſant, there is woont to be put vnto it cowes-milke, goats-milke, or the juice of ſweet almonds with ſugar. The Flemmings vſe to make pap-meat thereof, which they loue exceeding vvell. The Muſcouites diſtill the water of oats, and vſe it for want of wine, and ſuch water heateth and maketh drunke no leſſe than Wine.

Grauell.

Water diſtilled of Oats.

Thus much of the French opinion of Oats, vvho are indeed but halfe knowing, or not ſo much, in the excellencie of the graine; but to come to their knowledge who haue the full proofe and triall thereof, you ſhall vnderſtand that it is a graine of no leſſe worth and eſtimation than any of the other, and queſtionleſſe may much leſſe be baniſhed a Common-wealth than the other, in as much as where none of the other will grow, there this will; you ſhall then know, that Oats will grow in any ſoyle whatſoeuer, as either in fertile or barren, hot or cold, drie or moiſt, nor doth it aske much labour: for in fertile ſoiles it wil grow with one earing, as namely at ſeed-time, which is euer about the end of March, or beginning of Aprill: it will grow alſo after any other graine, as after wheate, rye, barley, or pulſe, but it is beſt ſowing it after barley or pulſe, becauſe to ſow it after Wheat or Rie would pill the ground too much, and make it barren too ſoone: In barren grounds it will grow with two arders, or three at the moſt, as one at Midſommer, another at Michaelmas, and the third at ſeed-time, or elſe at Michaelmas, and at ſeed-time onely: it muſt be ſowne vnder furrow, like barley in looſe moulds, and after two or three arders: but aboue furrow, in faſt earths, and where it hath but one arder onely: it muſt be well harrowed, according to the ſtrength of the mould, that is to ſay, with wooden-teeth in looſe moulds, and vvith yron teeth in faſt moulds: they muſt be cropt as ſoone as they turne colour, and appeare a little yellow, for elſe they vvill ſhed their graine, as being the looſeſt corne of all other.

Theſe Oats are of diuers moſt excellent vſes both for men and alſo for cattell, as firſt for Oatmeale which is made in this ſort; as ſoone as your Oats haue beene threſht and vvynowed, you ſhall lay them on your kilne, and vvith a ſoft fire drie them verie vvell, and then carrie them to the milne, either the Wind-mill, the Water-mill, or the Horſe-mill, and there let the Miller cut them, and hull them, but by no meanes cruſh them to fine meale, but onely driue the cleane kernell from the courſer hull; then vvith a fanne or a gentle vvind vvinnow the emptie hulls from the Corne, and if ſo be that you find they be not all cleane hulled, then paſſe them through the mill againe, and then vvynow them againe, and thus doe till the hulls be cleane taken off; vvhich hulls are a verie good prouander for horſes: as for the Groats, vvhich is vſually called common or courſe Oat-meale, they are excellent to make porridge of all kinds, and for puddings of all ſorts, or for any other pap-meat or panada whatſoeuer: it is alſo an excellent food at Sea, being boyled in Water, or otherwiſe vſed after the manner of grauell. This oat-meale being ground

into

into fine meale like other corne, maketh diuers kinds of verie good bread, chiefely where other corne is not to be had. If you mixe the fine meale of Oates with Wheat meale, it maketh verie daintie Oat-cakes, either thicke or thinne, and is of great estimation where they are knowne. These Oates being maulted, as you mault Barley, make a verie good mault, and that mault both verie good Ale and Beere, only a little more sharpe than that which is made of Barley. Lastly, those Oates are of all other foods the best that may be for the feeding of horse, or fatting of cattell: they are also good to feed all sorts of Pulleine, especially Geese, Swannes, and all manner of water-fowle, which take much pleasure therein.

Millet.

MIllet (as those know verie well which dwell in the Countrey Bearne, Bigorre, and Armignac) after that it hath beene steeped some certaine time in water, would be sowne, either morning or euening, in the coole thereof, in light and small moulded ground: and it groweth not only in grauelly ground, but also in sand, when the country is wet and moist: but in anie case it would not be sowne in drie grounds, and such as consist of Fullers earth, or are marly, neither must it be sowne before the Spring, for it requireth heat: wherefore it may conueniently be sowne in the end of the moneth of March, or else somewhat later, that so it may enioy the benefit of the dew a long time. It putteth not the husbandman to anie great charges, for a little seed will sowe a great deale of ground. So soone as it is sowne, it must be pressed downe with a hurdle of Wickers well laden, to keepe it from the heat of the Sunne, in the springing vp thereof: for otherwise the seed would grow vp and drie away, through the vehemencie and heat of the Sunne-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 be spied peeping forth of the earth, and before that by the operation of the Sunne the corne doe shew, it must be pluckt vp by the hand, and be laid in the Sunne afterward to drie; and lastly, shut vp in some place where it may be kept: and being thus ordered, it lasteth longer than anie other manner of corne. Millet doth good vnto the fields wherein it is gathered, in this respect; namely, that wormes will not hurt the corne that shall be sowne there presently after anie whit at all, seeing they will leaue the graine that is sowne, and cleaue to the straw of the Millet.

In the time of dearth they vse to make bread of Millet, but vnpleasant ynough, especially when it is setled: and the inhabitants of Gascoigne and Campaigne doe vse a pappe-meat made of Millet with milke, and that not of the pleasantest taste: as well the bread as the pappe-meat, made of Millet, is of small nourishment: besides that, they make obstructions; and that, because Millet is cold in the first degree, and drie in the third. Millet fried with salt, and flowers of Camomill, and put into a bag, doth serue against the paines of the collick and wringings of the bellie. To keepe Purgatiues, as Rubarb, Agarick, yea and flesh also, from rottennesse and corruption, it is good to burie them in Millet.

Sesame.

SEsame would be sowne in a blacke ground that is somewhat rotten and moist. It groweth also in sandie and fat grauellie grounds, or in mingled grounds, and it is verie fruitfull, euen no lesse than Millet or Pannicke. It is true, that the good householder 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 oyle that is pressed out of it, and the cakes which liquorish women vse to make of the meale. It must not be sowne but in the midst of Summer, whiles the times continue drie, and that there is no raine looked for of a long time; for the raine doth hurt it after it is sowne, cleane contrarie to other plants, which (all of them) reioice in raine after they

Oyle and cakes of Sesame.

are

are sowne. The oyle which is pressed out of the seed of Sesame, doth neuer freeze, and is the lightest of all other Oyles, 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 oylie matter.

Lentils.

LEntils must be sowne at two times, in Autumne, and most commonly, especially in France and cold Countries, in the Spring time, whiles the Moone encreaseth, vnto the twelfth thereof, and either in a small or little mould, or in a fat and fertile ground: for when they be in flower, they destroy and spoyle themselues through too much moisture, or by putting too farre out of the earth. And to the end they may grow the more speedily and the greater, they must be mixt with drie dung before they be sowne, and foure or fiue daies after that they haue beene so laid to rest in this dung, to sowe them. They will keepe long, and continue, if they be mingled with ashes: or if they be put in pots wherein oyle and preserues haue beene kept: or and if they be sprinkled with vineger mixt with Beniouin.

Lentils (howsoeuer auncient Philosophers had them in estimation) are of hard digestion, hurtfull to the stomacke, filling the guts full of wind, darkening the sight, and causing fearefull dreames: and withall, are nothing good, if they be not boyled with flesh, or fried with oyle.

Fasels.

FAsels grow in stubbly grounds, or rather a great deale better in fat grounds, which are tilled and sowne euerie yeare: and they are to be sowne betwixt the tenth of October, and the first of Nouember; or else in March, as other pulse, after that the ground hath beene eared about the eleuenth of Nouember. They must be sowne after that they haue beene steepe in water, for to make them grow the more easily, and that at large when they are sowne, and alwaies as they ripen to gather them. They make fat grounds where they be sowne: they are accustomed to beare much fruit: they keepe a long time: they swell and grow greater in boyling, and are of a good pleasant tast 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 they be boyled, they be powdred ouer with Pepper, Galanga, and Sugar: and yet more specially, if they be boyled in fat milke vntill they burst. If you mind to take away their windinesse, eat them with Mustard or Caraway seed. If you haue beene bitten of a Horse, take Fasels, chew them, and apply them so chewed vnto the greene wound. Young gentlewomen, that striue to be beautifull, may distill a water of Fasels that is singular good for the same end and purpose.

Lupines.

LVpines craue no great husbandrie, are good cheape, and doe more good to the ground than anie other seed: for when as Vineyards and arable grounds are become leane, they stand in stead of verie good manure vnto them. Likewise, for want of dung they may be sowne in grounds that stand in need to be dunged, if after they haue put forth their flowers the second time, they be plowed vnder the ground: they grow well in a leane ground, and such as is tyred and worne out with sowing: and they may be sowne in anie ground, especially in stubbly grounds, such as are not tilled: for in what sort soeuer they be sowne, they will abide the roughnesse of the ground, and negligence of the husbandman: neither doe they craue anie weeding, as well in respect of their root, which is single, as also for that if it were hurt, they would die presently, and because also that it should bee but labour lost:

loſt: for they are ſo farre off from being infected and wronged with weeds, that they euen kill them, and cauſe them to die. And this is the cauſe why manie ſowe them in the middeſt of Vineyards, to the end they may draw vnto them all the bitterneſſe of the Vineyard, as being the qualitie moſt familiar vnto them, and with which they beſt agree. Notwithſtanding they may not be ſowne deepe: for when they flower, they are made no account of. Of all other kinds of Pulſe they only ſtand not in need to be laid 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 ſhould 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 afterward boyled: they ſerue alſo for to feed men, to make bread 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 euerie day with the Sunne: inſomuch, as that by them workmen are taught the time of the day, though it be not cleare and Sunne-ſhine. *Wherefore Lupines are good.*

Lupines ſtampt and laid vpon the nauell, doe 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 young maidens and women which haue pale colours. Their meale is ſingular good in cataplaſmes to reſolue the ſwelling of the Kings euill, and other hard tumours, as well boyled in honey and vineger, as in honey and water: and likewiſe for the Sciatica. *Wormes in little children.*

Beanes.

BEanes muſt be ſowne in a fat ſoile, or elſe a ground that is well manured, and eared with two earings: and although it be in ſtubbly grounds, and ſeated in low bottomes, vvhither all the fat and ſubſtance of the higher parts doth deſcend; notwithſtanding the earth muſt be ſliſed and cut ſmall, and the clods broken before they be ſowne: for albeit that amongſt all the other ſorts of pulſe there be not any that doe ſo little vvaſte and vſe the ſtrength and juice of the earth; notwithſtanding they deſire to be vvell and deepe couered vvithin the earth: they muſt be diligently vveeded, at ſuch time as they peepe out of the earth, for ſo the fruit vvill be much more, and their coddes farre the tenderer. They may be ſowne at two times of the yeare, in Autumne vvhere it is a ſtrong ground, and the beanes be great; and in the Spring, eſpecially in this Countrie, in a vveake and light ground, the beanes being but ſmall, and of the common ſize: thoſe vvhich are ſowne in Autumne are more worth than the other, ſo that the hindes let not to ſay, That they had rather eat the huskes or ſtalkes of beanes ſowne in due time, than the beanes themſelues of three moneths old, becauſe they yeeld more fruit, and haue a greater and better ſtored graine. But at what time ſoeuer you ſowe them, you muſt haue ſpeciall regard to ſowe them all about the fifteenth day after the change of the Moone, becauſe that in ſo doing, they will be the better loaden, and becauſe they will not be ſo much aſſailed of little vermine, as and if the Moone were new. The day before they be ſowne, you muſt ſteepe them in the lees of Oliues, or in water of Nitre, to the end that they may beare the more fruit, be more eaſie to boyle, and not to be ſubiect to be eaten of Weeuils or Larkes. They muſt likewiſe reape and pull them vp in the new of the Moone, before day, and after leaue them in the ayre to drie, and threſh them out before the full Moone, and afterward carrie them into the Garner, for being thus ordered, vermine will not breed in them. Againe, they proue more profitable, being planted, than ſowne, in a good ground, that is well dreſſed, tilled, fatted, and manured: vvhich ſaid ground, if it be ſowne the yeare following with Wheat, will yeeld a more copious and plentifull harueſt, in as much as Beanes doe fatten a ground more than anie

other

other kind of Pulse. If you would keep them long, you must sprinkle them with salt water: but if you meane to boile them, you must bee sure to keep the salt from them, because salt-water doth harden them: they must not be left in the cold 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 liquored with this oile. The flowers of Beanes, notwithstanding that they be of a pleasant and delightsome smell, doe hurt a weake braine, and such a one as is easily carried 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 manie fooles, when Beanes flower.

Thus much for the French experience of Beanes, which doth indeed more concerne the Garden-Beane, than those which are continually in vse amongst Husbandmen. Therefore to come to the profit and true knowledge of the husbanding of Beanes, you shall vnderstand, that they are onely to be sowne in a rich stiffe ground that is verie fertile, as namely the black or blew clay, for in other earths they ioy but a little: and they will grow with one earing onely, which would be done at the beginning of Ianuarie vpon such earth as hath borne Barly before, or else vpon greene-swarth, which hath not been plowed long before: it must be plowed deep, and haue a great furrow turned vp: then you shall let it lye, till it haue taken frost and raine: then vpon the next faire season, being about or soone after S. *Valentines* day, you shall sowe it and harrow it. As for the weeding of Beanes, it is to no purpose; for they are of themselues so swift of growth, that they will out-grow all weedes. And if they haue anie Pease mixt amongst them (which should euer be, for it is the surest seed) they will smother vp and destroy all sorts of weedes. They are, because of their vpright growing, better to be mowne with sythes, than cut or reapt with hookes: they aske little withering; for so soone as the cod turnes blacke, the stalke dryes. The vse of them is principally for prouander for Horses, or to mixe with Barley, Wheat, or Rie, to make bread for hind-seruants, or for hunting or running Horses: but then commonly they are vsed simply of themselues, or else mixt with Wheat onely: for the mixture of Barley or Rie is not good for Horses of that nature, except for some cause physicall, as to keepe them soluble in their bodies, and so forth. The Garden-Beane is good for men to eat, being boyled and mixt with butter, vineger, and pepper; or for want of butter, with oyle-Oliue. The cods also are a verie good food, being boyled whilest they are greene and tender. Lastly, the water which is distilled from the flowers of Beanes, is good to take away the morphew or spots in men or womens faces.

Small Peason.

SMall Pease are no lesse profitable for the fatting of ground that is leane, than Lupines. It is true that if you looke to haue good store of them, and well-codded, you must sowe 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 endure and hold out the Winters cold, 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 end on stickes, rather than let fall flat to the ground, to creepe vpon it: they must be sowne thinne, because their stalkes doe spread themselues further than anie one other kind of pulse. They are verie subiect to be eaten within of Wormes: and yet those which are so eaten of Wormes, are better to sowe than the other which are whole and sound: For this cause, if you will preuent the Wormes that they may not hurt and hinder your corne, sowe Peason first in the place. It is true, that for the better growth and prospering of them, the thicke and grosse seed is most conuenient to be sowne, especially if it be laid in water to steepe therein a night, because thereby they grow the more easily, and lose some part of their saltnesse, in being steept, by which meanes they

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 sowne, standeth in need but of one earing.

Cich Peason.

CIch Peason doe likewise grow in fat and moist places: they must be sowne in a rainie time: they doe greatly load and burthen the earth, and for that cause are neglected of the wiser sort of husbandmen. Notwithstanding, if you will sowe 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 beene steeped the seedes of wild Cucumber and Wormewood, and the dew within fiue daies after will haue taken away all the bitternesse thereof. Such practises are likewise good for to be vsed about small Peason and Beanes. The vse of them is good for such as are slow 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 and weake voices. They are also good against melancholie, and doe cut off troublesome thoughts and cogitations, and put in place thereof iollie conceits and merrie moodes: and then they being laid forth in the Moone-shine when it is in the encrease, and before the Sunne rise, they must be sprinkled with oyle-Oliue, afterward steeped in warme water, to soften them, and lastly, boyled for to be eaten. The way to vse them, is rather to suppe vp their broth, made with the rootes of Parsley, than to eate the Peason.

Small Cich Peason.

SMall Cich Pease, called of the Latines *Cicercula*, must be sowne in fat places, and in a moist time, as in Ianuarie or Februarie: they doe lesse harme to a field than anie other pulse: but for the most part they neuer come to profit: for when they are in flower, they cannot abide drowth, nor anie strong Southerne windes, at such time as they leaue flowring.

Great wild Tare, and bitter Fetch.

THe great wild Tare and bitter Fetch doe desire leane places, and such as are not moist: for sometimes by putting forth too freely, and growing too much, they ouerthrow themselues. They may be sowne in Autumne, or in the end of Ianuarie, and all the moneth of Februarie, but not in March, because if it should be sowne in this moneth, it would hurt the Cattell, especially Oxen, troubling them in their braines.

Fetches.

THere are two seed-times for Fetches: the first, when they are sowne for to feed cattell, and it is about the fifteenth day of September: the second, in Februarie, or March, and this is for to make bread of for to eat, being mixt with other corne: both of them may be sowne in vntilled grounds, but it is better when they are sowne in grounds that haue had their three earings. This seed loueth not the dew, and therefore it must be sowne two or three houres after Sunne-rise, when all the moisture thereof is spent and consumed, either by the wind, or by the Sunne: and it must not alone be sowne, but it must also be couered the verie same day, because that if

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 ſowne, needeth not anie more than one earing, and when it is ſowne, it needeth no weeding. In anie caſe it muſt not be ſowne before the fifteenth day of the Moone, for otherwiſe the Snailes will annoy it. In like manner it muſt not be ſowne neere vnto anie Vine or Orchard, or anie 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: 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 anie other ſort of Pulſe be ſowne.

Panick.

HE that would ſow Panick, muſt make choice of a light, grauellie, ſandie, or ſtonie ground, and ſuch a one as is ſituate amongſt hills, and on the tops of hills, and yet whereas there is no little reſort of water, for that it being hot by nature, groweth and putteth forth more eaſily than Millet. It muſt be ſowne in Summer: and it groweth ſo ſpeedily, as that it may be mowen within fortie daies after that it is ſowne. The inhabitants of Gaſcoigne make bread thereof, but it is verie vnpleaſant, becauſe it is verie ſhort and apt to crumble away, euen like aſhes or ſand. The Perigordians frie it with butter, or oyle: others eate it with milke, or meat-broth.

Fenugreeke, Cummin, and Muſtard-ſeed.

FOr the ſowing of Fenugreeke, you muſt make choice 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 lightly 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 proue 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 thereof drunke oftentimes, doth infinite good to ſuch as haue beene troubled with an old cough, and likewiſe for the vlcers of the breaſt: for the diſtillations and rhewmes falling vpon the eyes, you muſt wet clothes in the decoction of this ſeed, and apply them vnto the browes. And as for Cummin and Muſtard-ſeed, wee haue ſpoken of them in the ſecond Booke.

Medick fodder, or Snaile-clauer.

THere is not either anie Pulſe or other feeding which is more agreeable or more precious for the feeding of beaſts, 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 heards of cattell, but alſo to ſerue for Phyſicke, for beaſts that are ſicke, and in that reſpect it is called of the Latines *Medica*. Some call it Burgundie hay, becauſe the Burgundians haue beene alwaies verie carefull for the ſowing and tilling of this hearbe. The inhabitants of Picardie call it *Foinaſſe*, and manie haue giuen it the name of great Trefoile. Howſoeuer the name goe, the benefit of this graſſe is ſo great, as that euerie carefull husbandman ought continually to reſerue the better part of his grounds, to bee ſowne therewith. Make choice therefore of the ſowing and growing of great ſtore of this graſſe, of an euen ground that is verie cleane and fat, eaſie to be plowed, and

which

which hath had three earings before it was sowne, 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 weedes that are in the ground may bee sufficiently killed, as well by the heate of Summer, as the cold of Winter. After that you haue made the ground well pleasing, and fit by such industrie, beginne to sow it in the end of Aprill, during the new of the Moone, and toward the latter end of the day; for being watered by the dew of the night, it will spring more speedily and easily out of the earth, than and if it were sowne in the heat of the day, because it would be burst continually, and would come but to small effect and profit. You must not bee niggardly in sowing of it: for by how much the more seed you sow, by so much the more thicke will the grasse grow; neither will there grow any other grasse there: and so there will also the more profit grow and rise thereupon to the good house-holder. So soone as it is sowne, you must harrow it euerie manner of way, as long-waies, broad-waies, and ouer-thwart, with harrowes or rakes of wood set thicke with teeth, but not of yron, because it is an vtter enemie to yron: afterward you must water it gently for the first time; for and if you should water it forcibly, and with aboundant store of water, you should driue the seed 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 yeare, and so proportionably the yeares following; for it endureth ten yeares, yea thirty as *Pliny* sayeth, without standing in neede of being sowne 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 lye vpon heapes any longer than a day in the meadowes, for if it should stay there any long time, it would raise such a heat, as that it vvould smother and kill whatsoeuer were vnder it, to the keeping of it for euer growing againe: wherefore it will be good to carrie it elsewhere, and to drie it assoone as possibly may bee, stirring it euerie day, from day to day. Againe, you must not let the cattell feede neere vnto this grasse, in as much as not their tooth onely, but their verie breathing on it also is very noysome vnto it, and that so greatly, as that it afterward becommeth either barren, or else dieth presently: it must not bee giuen greene for cattell to eate, least it make them sicke by reason of the moisture and heat that is therein: it must stay 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 seed of this snaile clauer, to sow the same vvhen it shall bee requisite: it must not bee gathered the first yeare that it beareth, by reason of his weakenesse; but in all the other following, and that in the moneths of Iune and Iuly, so soone as the huskes wherein the seede is contained shall appeare drie, and the seeds themselues be turned yellow.

Mixt prouander.

MIxt prouander must be sowne in fat and well manured places, and such as haue beene twice eared: it will be verie good if it be sowne with pilde barley, sometimes it consisteth of barley, oats, fetches, and fenugreeke, vvhich are let grow hand ouer head, and are cut afterward either greene or ripe, to make fodder of for cattell in Winter.

Rice.

IF you will sow rice you may doe it: but it is like to proue rather a worke of curiositie than of profit; for rice is a commoditie properly 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, chuse out some place that is verie

moist, and in case you haue no such amongst your arable ground, then chuse 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 thrice, where you meane to sow your rice, and when you haue thus plowed it ouer thrice, sow 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 moneths the depth of two fingers: and when as you perceiue the blade to begin to shoot forth his eare (knowing that it also flowreth and seedeth at the same instant) then double the quantitie of water to keepe the fruit from blasting or spoyling otherwise. If you order it thus, you shall not onely reape great quantitie of rice, but you may also sow it three yeres together one after another, without giuing any rest at all to the ground, and yet the last yeare will bee no lesse fruitfull than the former: yea, which is more, you shall make the field more fat, frolicke, in better plight, and cleaner from weedes, and cleaner from noysome beasts than it was before: yea, and further than this, you may sow therein for three yeares more, one kind of graine or other, whether wheat, or meslin, whereof you shall not repent you in the time of harueſt, you shall find 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 for the space of fiue whole moneths: but to recompence the same withall, it proueth verie profitable for food 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 restraineth fluxes as mightily: and this is the cause why such as haue great loosenesse in their bodies do vse it oftentimes, especially, if it be parched and boild in cowes milke, wherein many little flints of the riuer haue bin quenched: if you boyle it in milke, adding therto sugar and cinamome, it will prouoke vnto venerie. Many do thinke that it maketh fat; but seeing that (according to the Physitians) it is not digested in the stomach but verie hardly, it must needs nourish but a little, and then how can it possibly make one fat? indeed it may be said rather to puffe vp than to make fat.

Hempe.

HEmpe must be sowne 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 be sowne in March, and gathered when the seed is ripe, and afterward dried either in the Sunne, Wind, or Smoake, and then laid in water for to bee watered, that so the pilling may the more easily depart from the stalkes, afterward to be vsed in making of ropes and cloth, a labour and trauaile well beseeming and fit for women.

This is the opinion of the French, but not the generall opinion of the better experienced: for, the rich ground which is spoken of here to sow hempe in, must not bee taken for the rich stiffe blacke clay, or for any clay at all: for although they will beare hempe; yet they put forth so much bunne, and so little pilling, that indeed the hempe that groweth therein is good for nothing: therefore the best ground to sow hempe on, is the richest of all mixt earths, whose mould is driest, loosest, blackest, and quicklieſt ripe, with little earing, as namely with two ardors at the most, which vvould be in October the first, and the last in March, which is the best and most conuenient time for sowing. Hempe must bee exceedingly well harrowed and clotted, and the mould must bee made as small as dust; for the seed is verie tender at the first sprouting: but being once gotten aboue the earth, it outgroweth all other weeds whatsoeuer; and out of its owne nature, it doth choake and destroy them: whence it comes, that hempe neuer needeth any weeding: it must bee diligently and carefully kept and tended (after the first sowing, till it appeare

appeare aboue the earth) from birds, for the ſeede is ſo ſweet and ſo much deſired of all ſmall birds, that without great and diligent care they will not leaue you any in the earth. Now for the beſt time of gathering your hempe, it is acording to the common cuſtome of houſe-wiues, about Saint *Margarets* day, being towards the latter end of Iuly: But more particularly, you ſhall vnderſtand that it is beſt pulling your hempe for the pill as ſoone as it doth begin to turne yellowiſh, and the leaues to hang downeward looking vnto the earth: but if for ſeed, then not before the ſeed looke blacke, and bee readie to ſhed: hempe muſt euer bee pulled vp by the rootes, and firſt ſpread thinne vpon the earth, then afterwards bound vp in bundles, which they do call bayts, then it muſt bee carryed to the water to ripen, of which water the running ſtreame is the beſt, and the ſtanding pond is the worſt: yet it muſt bee done with great heed; for hempe is very poyſonous, and it doth not onely infect the waters, but it doth alſo poyſon much fiſh: Hempe muſt lye three dayes and three nights couered in the water; then it muſt bee cleane waſhe out of the water, and afterwards brought home and dried either in the Sunne or vpon the kilne. There bee ſome houſe-wiues, which (either for ſloath, or for want of a conuenient place to water in) doe ripen their hempe vpon the ground, by ſuffering it to lye at the leaſt fifteene nights vpon the ſame, taking the dewes which do fall Morning and Euening, and other raine by which it ripeneth; prouided that it bee turned euerie day once: but this manner of ripening is not good; for beſides that it is vnkindly, and doth oftentimes cauſe the hempe to bee rotten, it alſo maketh the hempe to be very blacke and foule; ſo that it doth neuer make white cloth. After the ripening and drying of your hempe, you ſhall brake it in brakes which are made of wood for the ſame purpoſe, and this labour would euer as neere as you can bee done in the Sunne-ſhine: after the braking of hempe, you ſhall ſwingle it, then beate it, then heckle it: and if you intend to haue verie fine cloth of it, you ſhall after the firſt heckling, beate it againe, and then heckle it through a finer heckle, then ſpinne it, after warpe it, and laſtly weaue it. Thus much for the hempe which is vſed for to make cloth withall: but for ſuch as ſhall bee preſerued for cordage, or the roper, you ſhall onely after the ripening pill it, and then either ſell or imploy it.

The ſeed of hempe. *To make hens lay egs.*

Hempe ſeed is verie good to make hennes 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, do make gunne-powder. The iuice or decoction of the greene herbe being ſtrongly ſtrained, and powred in ſome place where there are earthwormes, doth cauſe them to come forth by and by: likewiſe being dropt into the eares, it cauſeth the worms or other beaſtes which ſhall bee 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 ſeede 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 greatly tranſgreſſe the rules of Phyſicke, which giue this bruiſed ſeed in drinke, to ſuch as are troubled with the falling ſicknes or head-ach. This is a thing to be wondred at in hempe, that ſeeing there are two ſorts of it, the male and the female, yet the female beareth not the ſeed, but the male.

Line.

LIne muſt not bee ſowne in any ground, but where there riſeth great profit, and this followeth and is cauſed by reaſon of the ſeede which impaireth all ſorts of grounds verie much, and for that cauſe it muſt bee ſowne in a verie fat ground, and ſuch a one alſo as is reaſonably moiſt. In any caſe the ground where line-ſeed is ſowne, 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 huſ-wife muſt be carefull when the line is growne, to free it from being intan-

gled with the weed vsing to wind about it, and which of some is called linegout, and that not once but oft: to the end that in gathering the seed, in beating it with beetles, heckling and spinning of it, such filth may not remaine among the tow. It must be gathered when it is ripe, and when the colour of it groweth yellow, and after layd vp in some drie place, that so it may bee defended from the raine and dew, which are vtter enemies vnto it: when it is drie, it must be thresht as soone as may be (to the end that the mice eat it not) with wooden mallets, to get the seed out of it, and presently after that it shalbe caried 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 easily be seperated from the stalkes for the making of cloth. When it is drawne out of the water, it must bee laied on a heape, all round, but two or three fadomes broad, loading it aboue with boords and stones, and after that spred in the Sunne, to the end it may drie the better. The finest line, which is without seed (notwithstanding it bee the least and lower of growth than 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 verie fine and white sowing threed of your fine flax in this sort: Let it be watered in running water fiue or six daies in Iuly or August in the change of the Moone: so soone as it is drawne out of the water, spread it in the Sunne, that it may drie, neuer casting it into any heapes, for that which is laid vpon heapes after the comming of it out of the water, that it may take a heat, and being pressed downe to that end, doth become blacke, and turneth into a darke and obscure colour.

To make white threed.

This line after it hath receiued braking and the first hackling, you shall take the strickes, and platting them into a plat of three, make a good bigge roule thereof, and put it into a smooth and round trough made for the purpose: in the same manner as you beate hempe, so you shall beate this flaxe till it handle as soft as any silke, then vnplat the strickes againe, and heckle it through the second heckle, the which must bee much finer than the first: which done, plat vp the strickes againe, and then beat it the second time, and then vnplat as before, and heckle it the third time through the finest heckle that can bee gotten, then spinne this tow, and it will make you yarne either for Lawne, Holland, or Cambricke, or for the finest sisters thred that can bee sowed with: as for the hurds which doe fall from the heckle, you shall haue a great and diligent care to keepe them light and loose; for by reason of the much beating, they will bee exceeding soft, and apt to clotter together, and abide in lumpes, and in the drawing of the thred, it will handle very woollie: yet bee well assured, that from the first hurds, you shall make a most exceeding fine mydling, from the second a very fine lynnen, and from the third a pure good holland. Many other labours are bestowed vpon flaxe: but in this alreadie rehearsed, consisteth the whole art of the huswife; yet herein by the way is to bee noted, that euer before you beate your flaxe, you shall bestow great drying of it, letting it stand each seuerall time at the least foure and twentie houres within the aire of the fire before you beate it, for drying onely causeth it to breake.

Oyle of lin-seed.

Out of the seed of line, you may presse an oyle which will neuer freeze bee it neuer so cold: it is vsed of Physitions, Painters, and many other sorts of workemen. It is singular good to soften hard things, for the paine of the hemorrhoides, chaps and tumours of the fundament called Condylomata, being washed in rose-water, it cureth burnings: it is maruelous good in plurisies, if so be that it be new: for that which is old heateth and procureth vomite.

Nauets and Turneps.

NAuets and Turneps delight in a light and fine mould, and not in a churlish and sad ground; and yet turneps grow better in moist grounds & places, but nauets

on the tops and ſides of hills, in drie and pettie grounds, ſuch as thoſe are which are ſandie and grauelly. Howſoeuer it is, the ground 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 forth fairer corne. Turneps are ſowne twice in the yeare, 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 root would become hard, and full of ſmall and little holes. See more of nauets and turneps in our ſecond booke.

Chap. XIX.

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 ſeuen and twentieth of December.

Sow your corne as ſoone as you can, and ſtay not to ſow it in the Winter: Neither doe you euer ſow the corne which grew in a fat ſoile, whether it bee wheat or rie, or any other ſuch, in a leane and barren field; but rather ſow that corne in a fat and fertile ſoile, which grew in a leane and barren ground: and to be briefe, ſow in a well conditioned ground that which was growne in an ill conditioned ground. In ſowing your ſeed ſee that your hand anſwere your foot, and ſtanding vpon your feet, ſee that your right foot eſpecially be moued when your right hand doth moue. In ſowing of wheat you muſt caſt it with a full hand, or by handfuls: but in ſowing barley, rie, oats, and many other kindes of graine, eſpecially ſuch as is ſhut vp in huskes, as millet, pannicke and rape ſeed, muſt be ſowne and caſt into the earth with onely three fingers.

To preuent the froſt that it may not hurt the corne that is ſowne, eſpecially, ſuch as is ſowne in cold grounds, as thoſe which are moſt ſubiect vnto froſts, you muſt caſt and ſpread lime vpon the ſaid grounds before they be ſowne: or elſe, which is better, mingle a ſixt or eight part of lime amongſt the corn which you meane to ſow, and ſo ſow them together. *Froſt.*

To keepe your ſeed from being eaten of birds, mice, or piſmyres, water it before you ſow it with the iuice of houſe-leeke: or according to *Virgils* aduice, with water wherein nitre hath beene infuſed.

To cauſe peaſon, beanes and other pulſe to be tender and eaſily boyled, you muſt lay them a day before they bee ſowne, in water vvherein 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 yet be well boyled, then put into the pot wherein they are boyling, a little muſtard ſeed, and in a ſhort time they will relent and ſeeth in peeces.

Beanes being ſowne neere trees, cauſe their roots 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 ſowne: or if you ſteepe them in their cods in vvater vvherein nitre hath bin infuſed: if you vvould haue them earely, ſow them when you ſow barley.

Lentils will grow very faire, if they be infuſed in their cods in warme water with nitre; or if they be rubd ouer with drie ox-dung before they be ſowne. *Lentils.*

You muſt not ſow millet thicke, if ſo bee you would haue it good: for examples *Millet.*

 ſake

ſake, a handfull is enough to ſow halfe an arpent withall; for if you ſhould ſow any more you muſt but pull it vp when you come to the weeding of it.

Lupines. Sow your lupines before all other kinds of corne, without ſtaying or waiting for raine: before they flowre, you may put oxen in amongſt them, and of all the other ſorts of herbs they will eate; but they will not touch or come neere vnto the lupines, becauſe that they are bitter: you may make them ſweet, if you ſteepe them three whole dayes in ſea and riuer water mingled together.

Sow all manner 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 ſeeds and all manner of graine in the change of the Moone, if you would haue them to keepe, and doe with them as wee haue ſaid before. If you haue need to ſell corne, ſell it in the increaſe of the Moone, and not at any other time, becauſe at ſuch time they grow and become bigger in the garner, than they are woont to bee at other times.

Chap. XX.

Of the Bake-houſe.

IN vaine ſhould the husbandman toyle himſelfe in tilling his ground ſo carefully according to the forme and manner which we haue before deſcribed, and in like carefull ſort to gather in, heape together and keepe his corne, if hee hoped not for ſome fruit and profit of his paines and labours. But what that profit is which he receiueth of his corne, I referre my ſelfe vnto the ſale, which hee may yearely make vnto foreine and ſtrange merchants, 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, than many great Seigneours and Gentlemen: and I referre 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, cuſtards, flawnes, tartes, fritters, and a thouſand other prettie knackes and daintie conceits, 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 ſteed of wine in the countries where the vine cannot beare fruit) made commonly with wheat and barley. And laſtly to the ſale of bread which hee may practiſe and vſe euery day, whithout any whit diſaduantaging himſelfe; as wee 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 bee 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 things, for the food and ſuſtenance of his houſe, either yet to borrow of their neighbours ſtrangers, as bakers, paſte-cookes, and brewers for the vſe, or to bee beholden vnto them for any of theſe commodities, when they ſtand in need of them: For it is my intent and purpoſe that this our countrie houſe ſhould bee another Pandora, furniſhed and flowing with ſtore of all manner of good things 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 handes but money, 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 need ſhall be: and to be brieſe,

that

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 Bake-houſe, I doe not here intend to trie or ſearch out, who was the firſt inuenter of Bread-making, or what meates were in vſe amongſt them of auncient time, before the making of Bread was found out, or 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 hee may imploy and vſe for the making of bread. For certaine there may be bread made of all ſorts of corne, but not of all ſorts 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 Sythe or Sickle, but gathered by plucking them from the earth by the rootes, 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 corn doth faile altogether, or elſe fall to be exceeding deere: according as wee ſee in ſuch times of hard diſtreſſe, bread of Oats, Barley, Beanes, Rice, Millet, and Pannicke (for ſuch I haue ſeene in Perigord) yea of Bran, Fiſhes dried in the Sunne, Acornes, Cheſnuts, and Ferne rootes (for ſuch haue I ſeene in baſe Britaine) or which is more, of Brickes, Tiles and Slates, as is reported to haue beene 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, wholſomeſt 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, grounds, and ſoiles where they grow, according to the induſtrie of the husbandman: ſo likewiſe there are diuers ſorts of bread, made differing as well in ſauour and taſte, as in maner of nouriſhing. Therefore that you may be able to make your choiſe wiſely of all ſorts of corne of euery countrie that is fit to make bread of, you muſt ſee that it be thicke, full, groſſe, maſſie, firme, of colour ſomewhat inclining to yellow, cleane, yeelding great ſtore of cleane and white meale; which being ſteept and boiled in water doth quickly ſwell, which being newly threſhed, commeth preſently from the ſheafe: for that which is old threſhed, although it be drier than that which is new threſhed, as alſo more light, apt and ready for to make meale, & to keep in meale, notwithſtanding the bread is not of ſo pleaſant a taſte, ſeeing it hath loſt a great part of his well 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 buy (if poſſibly he may chooſe) any other corne to make good bread of, than 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 Paris, are thoſe ſorts which come out of Beauce, France, Brie, Picardie, Champaigne, and Baſſignie in Burgundie: howſoeuer alſo theſe in Berree, Poictou, Zanctonges, Angoulmois, Limoges, Normandie, Limagne, Languedoc and Auuergne, be not altogether to bee reiected. The corne of Beauce maketh a fairer ſhew than the corne of any other countrie, becauſe it is growing in a fertile and a 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 bee leſſe quantitie of paſte. The corne of France hath a ſhorter and leſſe graine than that of Beauce, becauſe it groweth in a ground neither too fat nor too leane, but indiffe- *Good corne. Corn of Beauce. Corn of France.*

rent:

rent; 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 than that of Beauce. The corne of Brie is of a lesse graine than that of France and Beauce: as also a lose of this corne is of lesse quantitie than that of Beauce corne, and of lesse whiteness and pleasure in eating, than that which is made of the corne of France, because that Brie is a countrie of sweet cherries. and yet notwithstanding it is found, that the countrie properly and truely called Brie doth surpasse and goe beyond the two other in massinesse of corne: and the cause making it so to be, is the shortnesse and thickenes of the skin thereof, which is euidently more apparant in it than in the rest, which make it to weigh the more. The corne of Picardie is of a lesse graine than any of the other three aforesaid, 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 grind than the others, and therefore 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 than the rest, seeing when it is ground, the bran thereof detaineth and keepeth backe of the flowre within it. Champaigne notwithstanding that it flow and abound with corne, and make a verie faire and great shew, yet it is inferiour vnto the other aforesaid countries; because the corne thereof yeeldeth lesse bread than the others, because naturally it is giuen to be choking, and to run vpon wreathes betwixt the millstones, and more tedious to grind than others: againe it is long, thin, and clouen in the middest, which maketh that it carrieth so much wast bulke.

Generally wheat the smaller it is, and the thinner the huske is, the better and whiter the meale is which commeth from it, as is both seene in France and in other countries: for in England the wheat which groweth on the rich stiffe soyles, and is called whole straw wheat, being a great large corne with a thicke huske, is euer the coursest and blackest of all wheats, yet good to the yeeld, and rich in meale, but the flaxen, and chilter wheate, which are much smaller and thinner huskt, and grow vpon barrenner grounds, as for the most part vpon the Iunams and such like, doe euer yeeld the finest and whitest meale, and therefore are most sought after, for the making of fine maunchets, sweet bisket, Iumballs, and such like fine pasts.

To grind corne.

THe husbandman hauing made good choice of his corne, shall send it to the mill whether it go with water or with wind, according as the countrie shall be most fit and conuenient for: or and if he haue choice and may send it to either, then hee shall rather chuse 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 very hard greet and all of one peece if it bee possible, such as are in Brie and Champaigne, especially, at Ferte vnder Ioarre: for, the millstones that are tender and soft, doe easily breake and quickely grow out of frame, and withall do continually leaue some grauell 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 doe 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 Sunne, and then in the end to send it to the mill. Some will not send it to the mill except it be very 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 yeeldeth. Others besprinkle it with salt water, hoping by such watering of it, that the meale will become more white, and that they shall haue greater quantitie of bran. Of old time as may be gathered out of *Aristotles* problems, barley was woont to be parched before it was ground. 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, hee may make

make a greater or a ſmaller meale, as alſo according as the corne it ſelfe ſhall be more groſſe, hard, ſmall or ſoft. Yet the leſſe the corne is bruiſed the finer the meale will be, and the groſſer your branne is, the better and vvhiter will your paſte be: vvhence it comes that the skilful Baker wil euer chuſe the great black Cullen ſtones to grinde his fine Wheat vpon, which no more but bruiſing, and, as it were, cruſhing the corne makes the meale as pure and as vvhite as Snow. As for the drineſſe or dankneſſe of corne, it is certaine that no graine, except Wheat, can be too drie, but that the skilfull Miller ſayes ſhould euer ſticke to the Hopper: vvhence it comes that he will, vvhen he findes his Wheat too drie, daſh or ſprinkle ſome vvater vpon it, which makes it grinde a great deale the better, and makes the meale much vvhiter.

Of Meale, Mil-duſt, flower of Meale, Branne, fine Meale, Wheate, Starch, and mundified Barley.

THe corne being ground is turned into Meale, in ſuch ſort as that meale is no other thing but that vvhich commeth of the corne vvhen it is ground: and ſo the meale falleth out to be ſuch as the corne was, that is to ſay, very vvhite, if ſo bee that the corne were pure and cleane, thick 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 vvhether he will keepe it long or no: ſuch as he vvill not keep, there is no need vvhy he ſhould care of what corne he cauſeth it to be ground, as vvhether it be old or new threſhed, neither yet how and in what maner: but ſuch as he doth entend to keep for ſome time, as in a ſtore-houſe for to anſwer the times of neceſſitie, hee muſt chuſe the drieſt corne that he can meet vvithall, becauſe that if it be not verie drie, it might verie quickly take heat in the meale; and ſo it is meete that it ſhould bee old threſhed and not new, and comming from the ſheafe (although the bread that is made of corne old threſhed be not ſo good as that which is made of new threſhed corne, and that vvhich commeth freſh from the ſheafe) for the meale that commeth of corne olde threſhed & reſerued a long time in the garner, keepeth better than that vvhich commeth of new threſhed 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 vvherewith it is couered, and ſo groweth drier and harder, not only 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 contrarie, the meale of new threſhed corne, is not of ſo good continuance, but ſpoileth ſooner, becauſe that the corne new threſhed, retaining yet his natiue moiſture, maketh the meale the more moiſt and heauie, and that it can not be ſo drie: vvhereupon it falleth out to be more inclinable and readie to corrupt. For euen as drineſſe doth preuent and hinder putrifaction, ſo moiſture doth haſten and help forward the ſame. And that it is ſo, vve 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 be threſhed, that ſo they may ſhift it out of its place into another that is more drie, and laying vp higher in a more open ayre: vvhere being laide and gathered together in heapes, after a long and not high raiſed manner, he diligently beſtirreth himſelfe to cauſe it to be remoued from place to place, that ſo it may take the aire by little and little, but eſpecially to ayre that vvhich lieth vnderneath, by laying it about: vvherefore it is not to be doubted but that the meale vvhich is made of corne that hath beene thus ordered in the Garner, is of much better continuance than that vvhich is of corne comming newly out of the ſheafe. Beſides, the husbandman muſt giue in charge (if ſo be hee vvould haue his meale to keepe long) to the Miller, to grinde his corne ſomewhat groſſe: for if it be ground fine, it is not poſſible for him to keepe it ſo long in good ſtate and condition. Notvvithſtanding, for the vvell

To keep Meale.

well keeping of all sorts of meale, whether it bee of corne new or old threshed, you must make choice of the highest roome of all your dwelling place, whether it bee towre, towne, or towne-house, and being placed there as in a store-house, it shall bee 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 needfull to change it oft from one place to another, and by this meanes it will be kept a whole halfe yeare, and being often remoued and changed from one place to another, it will bee increased a fift or sixt part at the least, of which, notwithstanding, there cannot be made so good bread, as of the meale that is newly ground. And thus much for the farmers duetie about baking, which consisteth in chusing the corne, causing it to bee ground, and laying vp of the meale in some garner, either to bee kept, or to be presently vsed about the making of bread. The ordering of the meale, and making of the bread belongeth vnto the house-wife, according to the custome of the auncient Romans, amongst whom, the women of speciall note and account did worke and knead the meale, and made bread with their owne hands, as *Plutarch* reporteth in his Problemes. The house-wife then being possessed of so much meale in the garner, shall goe about to doe her indeauour to make bread: but before she beginne to make it, she shall seperate 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, and of the Latins Pollen, whereof the pasterers or cookes for pastrie doe make wafers, and such like daintie knackes: the grossest part is the brane, called of the Latins Furfur, which commeth of the coat or huske cleauing next vnto the narrow and kernell of the corne. Betwixt the flower of the meale and the bran, there are yet other parts of the meale, more or lesse fine, or more or lesse grosse, according to the wideneſse or narrowneſse of the temze or bolter through which they passe, and according to the difference and diuersitie of these parts, there are made different and diuers sorts of bread, that is to say, more or lesse white, according to the taking forth of two, three, or foure 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 gold-smiths, to make their paste withall: there is yet another kind of meale, which the Italians call Semole, which is fine meale, or course flower, called of the Latins Simila, or Similago, whereof wee haue spoken before: Wee haue it not in this countrie, it is brought vnto vs from Italy and Naples, neither doe 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 Greeks and Latins Amylon, as though it were made without mill-stones. It hath heretofore beene made diuers waies, but in this countrie they vse to make it in this sort: They chuse the fairest and purest wheate that may bee got, and cause it to bee ground verie finely: which done, they cast the ground meale into a vessell whch 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 new water into the vessell, which they likewise straine in such manner as they did the former, leauing the white meale in the bottome whither it is setled: and this they drie in the heate of the Sunne about the dog daies; and when it is dried, it becommeth hard, and is afterward broken into gobbets, and so made into fine meale.

Mill-dust.

You may make meale likewise of other corne, than of wheate, as of barley, rie, meslin, seco urgeon, and many other sorts of graine, whereof wee 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

of branne: and hence it commeth that the bread made thereof, doth losen the belly. Notwithstanding, there vvas in old time made of Barley a sort of meale vvhich vvas called *Polenta*, that is to say, of Barley newly dried, then fried, and afterward ground: and this vvas vsed to make pappe-meate of, or else to put in meate brothes to thicken them. Some doe the like vvith mundified Barley.

Barl eymeale

Polenta.

The Meale of Rie is likewise full of branne, but that of Oates is yet more full: notvvithstanding that, Oatmeale vvhich is made of Oates husked, is a vvelcome dish to the tables of great Lords. The Meale of Rice is vvhiter than any of the rest. As for the Meale of Pulse, it is oftner made by being braied in the mortar, than by grinding: howsoeuer, it may more commodiously and a great deale better bee made vvith the Mill.

The meale of Rice and Oatt, Oatmeale, Ricemeale.

Leauen.

LEauen, called in Latine *Fermentum*, because it puffeth vp, and swelleth in continuance of time, is a lump of paste left of the last masse of dough, couered and hidden in the meale vvhich is kneaded, to take away the clamminesse and cleaving propertie vvhich is in the meale that is purposed to bee made into bread. This Leauen becommeth sowre by continuance of time, and thereby maketh the bread more delightsome, and of a more pleasant taste. Againe, vve see that bread, by how much the more Leauen it hath, by so much the more vvholsome and vvell relishing it is, ouer and aboue that vvhich hath lesse store of Leauen in it. It is indifferently hote, and a little cold: hot by reason of the putrifaction vvhich it is cast into, and cold by the nature of the meale. This Leauen is made diuers sorts of vvayes, according to the manners and fashions of countries: wee make it of Wheat paste to make Wheat bread, and of Rie paste to make Rie bread: some put vnto it Salt, some Vineger, and many Verjuice made of Crabbes. The workers in Pastrie do vse the rising of Beere to make their Wigges vvithal, as vve shal haue further occasion to speak of it in laying open the vvay to make Beere. People of old and auncient times did make it diuers vvayes, as *Plinie* reporteth. The Flemings do mightily boile their Wheate, and take off the scumme that riseth thereof in boiling, which they let grow thick, and vse the same in stead of Leauen: and that is the cause vvhy their bread is a great deale lighter than ours. Howsoeuer it is, the Leauen vvhich men-bakers and vvomen-bakers doe vse to make their bread vvithall, may bee kept fifteene daies and not any more, because after such time it corrupteth and decayeth. But to be sure, it is not good to keepe it so long: for to keepe it you must vvorke it vp into a round paste, couer and hide it ouer in meale; and besides, in vvinter it must be couered ouer with good store of clothes in the kneading trough. When the good vvife of the house is purposed to bake her paste, she must two or three dayes before, or, vvhich is better, ouer night, kneade in her said Leauens vvith hote vvater, or else with cold, according to the time and diuersitie of the corne, vvhereof she meaneth to make her bread, as we will speake further of by and by. The vvorkers in paste-meates doe vse but verie little Leauen in their crusts, or none at all, either because it vvould make so small a quantitie of paste as they vse to make their crusts of, too sowre; or else because the Leauen vvould draw vnto it all the Butter, or such other fat as they should mingle amongst their paste, for as much as Leauen hath the power to draw moisture vnto it, as vvee may easily proue by Apostumes, vvhich vvhen we vvould haue to ripen and swell vp higher, vvee vse to applie a paister of Leauen to them. Furthermore, if it should happen that the Baker, or good vvife of the house should finde her Leauen too sowre, and that she cannot come by any other, the remedie must be to knead her Leauen with hotter water than she would if it vvere in its proper nature and kinde, that so by the heate of the vvater the Leauen may recouer some strength, and somewhat renew its naturall force, having lost its naturall heat, vvhereas on the contrarie, vvhen the Leauen is in its kind and as it should be, there is not any thing but cold water to be vsed about it.

The

The making of bread according to the diuersitie of corne whereof it is made.

Bread of corne growing in Beauce.

THe houſe-wife muſt bee ruled and aduiſed in the making of her bread, by the natute and condition of the meale whereof ſhe maketh it: wherefore if ſhee dwell in Beauce, or dwelling out of Beauce, do 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 vvith cold vvater at noone day, and renew it againe at fiue a clocke, and laſtly at nine, without failing of keeping theſe houres in very preciſe manner: This water thus vſed in Sommer muſt be drawne freſh out of the Well, or from the fountaine and riuer, becauſe that Well vvater as it is more heauy than the other, ſo it maketh the bread more heauy: and on the contrarie, ſpring vvater, or vvater from the riuer, as it is lighter, ſo it maketh lighter bread. In Winter ſhe muſt renew her leuen with freſh vvater vvarmed or made hot: and with this water both Winter and Sommer, ſhe ſhall vvet her armes, and knead her paſte 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 been there, and that all the clammineſſe and cleauing qualitie of the ſame may be throughly broken and dried vp, that ſo the bread may be the more ſhort and finer in chawing, and not eating like paſte in the teeth, mouth, and ſtomach. After ſuch handling of it, ſhe ſhall take the pains to turne her paſte oftentimes, that ſo it become not leuen, for otherwiſe it would not eate 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 therof would but help it a little with ſome freſh vvater.

Bread made of the corne of France.

If the farmers wife do dwell in France, or make bread of the corne growing ſometime in France, ſhe ſhall not vſe ſo much leuen thereunto as ſhe did vnto the meale made of the corn growne in Beauce, both becauſe the corne commeth ſhort in yeelding like quantitie of paſte, for like quantitie of corne, as alſo becauſe the meale hath not ſo good a band, neither yet is it altogether ſo clammie: and therefore you muſt vſe a meane and reaſonable meaſure in your leuen, and withall let your water be leſſe hot, than in the kneading of Beauce meale; for if you knead it vvith vvater that is more hot than needeth, the paſte will ſwell vp the more a great deale, and afterward vvill drie out of all reaſon.

Bread made of the corne of Brie.

To make bread of the corne that was growne in Brie, you muſt vſe a quite other manner of order, becauſe that countrie corne is much more churliſh than that of France or Beauce: the firſt flower that commeth out of huske or skin of the ſaid corn, is better bound than the others, becauſe the corne is ſhorter, and ſo hangeth in the bolter as doth the oatmeale, contrarie to the nature of other corne, in as much as the ſaid oatemeale is ſweeter than 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 bee the ſecond flower: and this was not, neither ſhould it bee ſhorter than the corne of Picardie.

Bread of Picardie.

Picardie corne muſt be much corrected, as being hard to be vvell 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 hard to bake, and hard to take colour, which may ſeeme ſomwhat ſtrange; for ſeeing that it is ſo ſowre and drie, it ſhould argue that the bread ſhould the ſooner bee baked in the ouen: but the hardneſſe and heauineſſe of the meale is the cauſe that it is ſo hard to bake: as alſo there may be ioined 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 inward parts of the bread

ſo

ſo eaſily as it ſhould: and this is the cauſe that maketh the bread to bee alwaies as it were fat.

The meale of the corne of Champaigne craueth a newer made leuen when it is to be made into bread, becauſe it hath a ſmatch of the earth, which would make it to be become worſe in paſt, if it ſhould not haue added vnto it ſuch leuen 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 the corne which was growne in Campaigne.*

Beſides theſe breads made of theſe ſeuerall cornes, you ſhall vnderſtand that generally the breads which are moſt in vſe are firſt the manchet, which is the fineſt of all other, and is made of the pureſt and beſt part of the meale finely bolted or ſearſt, and made light with barme onely, and not with leuen, neither muſt it be made too light or ſpungie, but of a good ſolide temper, firme and faſt wrought: the next to it is fine cheate bread, which is made of the next meale to the fineſt, and brought onely to differ through the courſneſſe of the boulter, which being a little wider than the firſt giues more libertie to the meale to paſſe away and goe neerer to the branne: this muſt be made light both with leuen and barme, yet very well wrought and made altogether as firm as the manchet: the next to this is courſe cheate bread, the which is made of the courſeſt meale as being boulted as cleane from the branne as it can poſſibly be got, and the boulter which is for this purpoſe muſt bee a courſe ſearſe or a fine temze: this bread muſt be made light with leuen onely, neither is it much materiall how ſpungie or open it appeares; for this kind of bread is euer to be puſt vp and made to appeare in as great quantitie as poſſible it may bee: the laſt ſort of bread is that which is made for peſſants or hinde ſeruants, and it is made of meale vnboulted, the branne and the meale being all knodden together, and in this caſe your meale would bee ground as fine as is poſſible. There be ſome that after they haue ground their meale groſſe, and boulted out the manchets, they will then ſend that which is remaining to the mill againe, and haue it newly ground ouer againe as fine as it poſſible may bee, and of it they make this courſe hindes bread: and of a certaintie it is a well allowed husbandrie; for thereby you ſhall reape a double commoditie. This bread ſome mixe with leuen, ſome doe not: but certainly the leuen is beſt, for it giues vnto the bread a pleaſant and delightſome taſt, whereas the other wanting the ſame hath a very rough, wateriſh and vnwholeſome taſt, and it is onely profitable in this, that a man not taking any delight to eat it, it will laſt a great deale the longer: this bread would be bakt in great loaues, and that ſomewhat hard alſo.

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 boulted: it is no eaſie thing to pull out ones hands when they are in kneading of it: the good huſwife that hath not bin acquainted to worke in this kind of corne, doth find herſelfe much incumbred therwith, and that in part, becauſe the better part of the meale vſeth to ſtay behind with the bran; and therefore for the profit of the houſe it were better to bolt the meale of rie and meſlin, than to ſift it, becauſe the bolter with the working of the arms, doth cauſe the bran to let go the meale that is within it, which is more than either the pocket or ſearce will do, becauſe they make no mouing or ſtirring of the meale, but from one place to another. *Bread made of meſlin.*

The paſte therefore being well kneaded, ſhifted, and prepared, as need requireth, it muſt be parted into round peeces, of a reaſonable greatnes & thicknes, to be ſet in the ouen made reaſonably hot, euen in ſuch ſort as that the bread may (according to the greatneſſe, thickneſſe, & qualitie of the paſte) be ſufficiently baked: for a weightie and thicke loafe of paſte made of the corne of Picardie, would haue a longer and greater baking than a ſmall loafe, and that made of the corne of Beauce or France. If the ouen be too hot, the cruſt will bee ſcorched, and within it will remaine raw and vnbaked, the heat 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 annise seed therwith, or any other such mixture, that hee must mingle and put the same thereto, whether it be salt or annise seed, or any such thing, at such time as the past 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 wholly together, and hauing nothing sifted out, is made houshold bread. And when the greatest of the branne 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 pastrie. Some also do make bread as it were of pure bran, and therin likewise sometimes to be found straws and chaffe, and that for to feed dogs withall.

The fittest place for the baking of bread is the ouen, because it admitteth the heat of the fire equally and indifferently on all sides: vpon the harth or gridyron, the one part of the loafe baketh, and the other remaineth raw: and vnder the ashes it is not so well baked.

The fire that is for to heat the ouen, must bee fagot wood, or billet, or shiuers of thicke wood that hath no stinking or vnsauoury smell: or for want of wood, straw or stubble, as is vsed in Beauce, or of thicke reeds, according as the countrie will most conueniently afford.

The bread must be baken in the ouen, in a good sort and meane, and with a reasonable heate: for ouer-great a heat would scorch the crust that is aboue, and so debar it selfe of inward entrance, to the causing of the said inward part to remaine raw and paste-like: a lesser heat than is meet and conuenient would let it remaine all raw: after it is baken enough it shall bee drawne forth out of the ouen, and laid to rest and abide in a place that is neither stinking nor vnsauourie, nor yet infected with any euil aire; for the hote bread doth easily draw and sucke in any venemous or corrupt qualitie 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 it in some celler or place which is vnder the ground, or in some other place which is moist: and his rie bread in some place neere vnto the fire harth.

The bread made of other sorts of corne as also of certaine pulse.

Barley bread. BArley bread must bee made of the best barley that may be found or gotten, and not of the meale whole and entire, 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, very apt to crumble, and of a sower tast; so that it would be better to mingle amongst this meale, some meale of pure wheate, or meslin. The maner of seasoning it with leuen, as also of kneading and baking of it, is no other, than is vsed in wheate. After the same manner is bread 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 especially in the time of dearth, for their better contentation, although there bee no great store of nourishment to bee 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 indeed it eateth very vnpleasantly.

Bread of millet Bread may bee made of millet as also of panicke, but such as is verie drie and brittle, and yet the Gascoines vse it very commonly, and especially the Biarnoyes, who for this cause are called millet mangers of their neighbours dwelling therabout. The Biarnoyes do make hastie pudding after this manner: They take three or foure

pounds

pounds of the meale of the millet for the morning, and as much for the euening, they set it vpon the fire in a Kettle whereinto there is powred fiue or sixe pints 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 very throughly broken and made all one, then afterward taking it out of the kettle, they diuide it with a thred into many peeces and eate it in that sort with cheese, or with thin salted milke.

Bread is likewise made of rie, but such as eateth very clammie, whereof wee haue spoken in the discourse of rie: for the taking away of the clamminesse thereof it will be good to mingle barley flower with it, or rather wheate flower, or else to take the flower of the rie meale: it will be of a wax colour, if yet while it is hot you lay vpon it some heauie meale. *Bread made of rie.*

It is vsed likewise, to make bread of rice, beanes, spelt corne, and many other sorts of corne and pulse, and that after the same sort that wheat corne bread is made.

In like manner the industrie and indeauour 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 leuen 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 kind of bread hath not much leuen in it: the second kind of bisket is made of pure wheat without any mixture, fit for the poore that are infected with the pox, 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, cynamome, pepper or ginger, and sometimes annise seeds, and it seruetb to eate in the time of abstinence, as Lent, and such other. At Reyns they vse to make spiced bread with honie and a little quantitie of pepper or cynamome. The Bakers which belong vnto the Court make their bread with milke. *Bisket.* *Spiced bread.* *Bread of milke.*

Chap. XXI.

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 tast, how vvel soeuer prepared and set out with good sauces, do (for the most part of them) cause very oft a distast and loathing of themselues; but onely bread holdeth out without dislike growing therupon 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 time of sickenes: in health it is the beginning and ending of our meat, very pleasant and delightsome with all kind of meats. In like manner of a certainty bread is by a maruellous benefit of nature endued with all sorts of tastes and relishes, which particularly are the prouocations and allurements causing vs to affect and eate this or that or any kind of meate whatsoeuer. Some whereof do please vs by reason of their sweetnes, other some by reason of their sowernes, some by reason of their saltnesse, and other some by reason of their sharpnesse, and some by reason of their pleasant smell: and all these well pleasing relishes, making sauourie vnto vs all other sorts of meate, doth bread containe and comprehend in it selfe. Againe other victualls, haue they neuer so good a taste, can neither bee pleasant nor profitable for the health in eating, if bread bee not eaten with them, in as much as the bread by its owne good nature doth correct the faults that are in other meates, 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 find by daily obseruation, that such as eate their meate, whether it bee flesh or any such sort of victualls 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, because that bread (by reason of much solide and firme nourishment which it bringeth vnto the bodie, if it happen to be eaten in excessiue quantitie) doth fill the veines with aboundant store of bloud, but such as is not apt to flow and stirre, and such as is not apt and easie to bee euaporated and discussed, being giuen to endure and continue like solide things in a constant and stayed course: of the which bloud all the bodie being nourished, is made more corpulent, full and massie; and so by reason of this fulnesse the lesse perspirable, because the pores and passages of the skinne, by the which the whole bodie should haue meanes for the breathing out of his superfluous vapours, are stopt; and thereby the bodie 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 especially 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 inconueniencies hapning to the health, through the bad digestion and ill concoction of the stomach, those are the most grieuous, which grow of the ill digesting of bread, rather than where flesh or such meat 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 should not still bee preferred before all other sorts of victualls, seeing these discommodities arise not of the meane & reasonable vse, but of the excessiue vse rather of the same, which is the high way to mar and make huttfull not bread only, but whatsoeuer other good and excellent things; so greatly euerie where and in all good things, 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 indeed by the superfluousnesse of humours, which may rather bee accounted for a vertue and commendation vnto it, than any dispraise: but the further discourse of this matter I leaue for another place. Seeing then the life of men consisteth more in the vse of bread than of all other things, who so is carefull of his health and life, must make choice of his bread, according as his substance, calling, and naturall disposition shall direct and guide him.

Omnis repletio mala, panis autem pessima.

Bread made of the whole flower.

The bread that is made of wheat meale whole and intire, as from which there is nothing taken by temze, is fit and meet for hindes and other workefolkes, as deluers, porters, and such other persons as are in continuall trauell, because they haue neede of such like food, as consisteth of a grosse, thicke, and clammie iuice, and in like manner such bread fitteth them best, which hath no leuen in it, is not much baked, but remaineth somewhat doughie 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 sort of pulse.

Bread of the flower of meale

The bread that is made of the flower of the meale, being the purest and finest part thereof, is good for idle and vnlaboured persons, such as are students, monks, chanons and other fine and daintie persons, which stand in neede to be fed with food of light and easie digestion. Such is the white bread which is sold of the bakers, and chapter bread: as also that which is wel leuened, knodden, somewhat salt, somewhat hollow, and well risen, like vnto court bread.

The bread that is made onely of rie flower, is verie blacke, heauie, clammie, 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 land, but not for men of note and birth liuing at their ease: It is true that Phisitians doe chiefely commend it in Sommer in the beginning of meate for to loosen the bellie, as wee see it practised in the courts of great states: but such bread must not be made of the intire meale of rie, but such

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as is well sifted: and it must beare the colour of waxe, and bee new baked; for that which is old groweth sowre, and looseth his pleasant smel. The women of Lyonnois, to the end 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 rie. Such as are much altered and changed, in steed of ptisanes, cidre, beere, or any other such drinke, may drinke of breaded water, that is to say, water wherein rie bread hath beene well beaten and laboured.

Bread made of barley meale only is verie dry, easie to crumble away, and of very small nourishment, and therefore fitter to loosen the bellie than to feed or nourish, by vertue and force of a detergent faculte, wherewith barley is greatly furnished: And this is the cause why at Rome this kind of bread is made no account of, as for to be vsed of men, leauing it as a food for cattell, or else in reproch, for faint-hearted and dastardly souldiers; for it was vtterly 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 many do imagine that the vse of barley bread doth make them lesse subiect vnto the gout: contrarie to that which *Aristotle* saith in his Problemes, That bakers and such as vse baking are weakned thereby; but yet more than the rest, such as vse to handle and worke much in barley stuffe. The thing I leaue to be tried by the sequell.

Oaten bread is not commended, both because the imploying of oats that way were to rob cattell of their due food and prouander (a great argument of famine) as also because such bread is of an vnpleasant taste. It is better to vse oatmeale made of oats 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 only amongst the vulgar sort, but also in the houses of great Lords; but these do vse it rather for daintinesse sake, or for want of a good stomach, than otherwise: it is verie drie, light, and easily crumbling, and so fit for to drie vp a stomach and bodie that is very moist. It is pleasant in tast when it is new and well baked, especially when it is eaten comming hot out of the ouen, for then it tasteth and eateth with a maruellous pleasant sweetnesse: Likewise in countries where such bread is made account of, the bakers carry it presently after it is drawne into the towne, and cry 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 be 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 old times the best and most excellent wheat that was.

There is no regard to be made of the bread made of the bran which commeth of the meale, that hath its flower taken from it, and is commonly called meale bran: it is better to leaue it for the hounds or sheepherds dogs, or such as serue for the keeping and watch of the house. *Bread of bran.*

In England and other places they make a great and profitabe vse of this meale, as namely, a certaine bread which they call horse-bread, and is so generall among them, that you shall not find an Inne, Ale-house or common Harbour, which doth want the same: how excellent good and wholesome it is for horses, I will not boast, because the bran is naturally hot and burning of it selfe, and breeds many inflammations and hot diseases amongst horses: yet certaine it is, it will feed much, and for trauelling horses it is a good food, and well allowable during their labour or time of trauelling: but in their time of rest not so good nor wholesome, especially, that which is of the common or worse sort; for you must vnderstand that there be two kinds of this common horse-bread: the first kind of it, is that which is made of Branne or Chyssell onely, and knoden with cold water, without any mixture of other meale with it more than that which they mould it in, which seemeth onely to bind the chissell together, which otherwise would fall in sunder: the other kind of bread is, when they take two bushells of Branne or Chissell, and adde vnto it one bushell of

beane or peaſe meale, and ſo kneade it vp in water ſcalding hot, and after the loaues are moulded, to roule them in ſpelted beanes cruſht and bruſed in a mill, and ſo bake it well: This bread is not altogether ſo vnwholeſome as the former, and may very wel ſerue to feed horſes with all the yere; for it is both hartie and ſtrong, only a little too heauie, which maketh it hard of diſgeſtion, and ſo more hurtfull to horſes of tender ſtomaches, or ſuch as want exercise, which is the onely meanes of ſpeedy euacuation.

Soft bread. Bisket. Soft bread (otherwiſe called of the French *Pain mollet*, or *Pain de bouche*) is to be made for none but great Lords. Bisket bread made of the flower of white meale, is for ſuch as take the dyet. Bisket made of rie and ſuch other graine of the inferiour ſort, is for mariners and ſuch as are beſieged in townes. The ſpiced bread is for ſuch as are ſweet toothed and licouriſhly giuen.

The markes and ſigns of good bread. The moſt excellent and beſt bread of all other (if you haue need at any time to make choice) is that which is made of good and pure wheat, that is new, not old, nor corrupted, or any way ſpoyled, moiſt, or long kept, hauing beene well ground, well ſifted, well wrought into paſte with good ſtore of leuen, and ſufficient quantitie of riuer or ſpring water, rather than that which is taken out of Wells, but neuer out of fennes, pooles, or fiſh-ponds, nor yet out of troubled, dyrtie, muddie, vncleane or ſalt water: being well raiſed and throughly kneaded and turned on euery ſide, and let reſt certaine houres, being wel couered and ſomewhat ſalted, of a reaſonable maſſe of paſte, not too exceeding great, that ſo it may take the heat of the fire equally on euerie ſide as well aboue as below: which is baked in the ouen with a reaſonable fire, and ſuch a one as did burne cleare, feeding vpon wood rather than vpon ſtraw, ſtubble, reed, rotten or medicinable wood: which is indifferently baked; ſo as that by ouer much and long baking the cruſt is not ſcorched, nor the ſweet iuyce of paſte, which is as it were the life and ſubſtance of the meale, is not ſpent and conſumed: or ſo as by too ſlight and ſlender baking, the inner part of the bread remaine raw, and ſo become a heauie and burthenſome bread vnto the ſtomach very hardly to bee digeſted, and ingendring great ſtore of windineſſe and ſpettle, drawne 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, clamminesſe and ſliminesſe which it had in the kneading, and ſo being eaten new, would procure the inflamation and puffing vp of the ſtomach, prouoke thirſt, be hardly digeſted, ſubuert and ouerthrow the ſtomach, and cauſe obſtructions in the liuer and inward parts. It is true that phyſitians do greatly commend in faintings and ſwounings the ſmelling of the crummie part of the loafe comming new out of the ouen, and ſprinkled with wine. Old baked bread, eſpecially that which is three or foure daies old, looſeth all its beſt grace and ſauour, and in ſteed thereof falleth into drieneſſe and hardneſſe, and ſo becommeth hard of digeſtion, paſſeth ſlowly downe into the bowells, cauſeth coſtiueneſſe, and begetteth a melancholie iuyce and nouriſhment. The cruſt of bread notwithſtanding it be of better taſte and reliſh than the crums, and that the common people do thinke that it maketh a ſtronger bodie, 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.

Cruſt of 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 eat euery day, cannot preciſely and ſtrictly bee ſet downe, with regard had to the time, (for in Winter men eate more than in Sommer) age, diſpoſition of the bodie, euerie particular mans maner of liuing, and the cuſtome of the countrie or place, without the omitting of many other

other circumſtances. It is true that Courtiers, Chanons, Monkes, and Schollers of Colledges do keepe and obſerue ſome rule that way, but not ſo conſtantly, but that it may bee 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 eat it either alone, or with other meates, whereunto it ſerueth not onely, as wee 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 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 ſtomach that is too moiſt, and to hinder eſpecially in fat folkes, that the meat which they haue taken, be not ſo ſodainely diſperſed into all the ſeuerall parts of the bodie. Some ſay likewiſe, that toſted bread being often eaten, doth make fat folkes leane, and conſumeth ſuch flegme as may be gathered in the ſtomach: and being eaten all drie, in a morning faſting, it likewiſe drieth vp and ſtayeth all manner of rhumes and humours falling or gathered into any part or member whatſoeuer. This is the cauſe why Phyſitians appoint bisket bread for ſuch as are troubled with rheumes and diſtillations. Some vſe toſted bread ſteepe in Wine vvith ſugar and cynamome, to procure an appetite vnto a dull ſtomache, either in ſickenes or in health. Some do make ſippets or ſmall ſlices (as they call them) of bread dried vpon the coales, which they ſteepe an houre 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 bodie, without making of any obſtructions: and this becauſe the waſhing of it doth wholly take away the heauines and clammines belonging vnto the earthie parts thereof, and ſo maketh it light and altogether airie: That this is true, you ſhall find by experience, becauſe that if you caſt it into the water it ſwimmeth a loft like a peece of corke; and againe, if you weigh it after that it is waſhed, you will wonder at the lightnes of it; for indeed you ſhall find it not to be ſo heauie by the halfe. Old men of auncient time did cut it in ſlices, and waſhing it in water, made great account of it in ſharpe agues and ſuch other diſeaſes, becauſe it is of ſmal and light nouriſhment, according as is required in ſuch ſicknesses: and in theſe dayes we make no leſſe account of it, ſaue that we vſe not to waſh it in water, but in the broath of meate, as of veale or capon poſſibly, becauſe of the daintines of this age, or elſe for the parties feeblenes ſake, which (it may bee) falleth out to be greater than it was in the bodies of thoſe which liued long a goe. 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 cold water, changing the ſame three or foure times, and in the end boyling 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 health, but are troubled with crudities vpon their ſtomach, of what cauſe ſoeuer they come, as alſo for them that haue but bad digeſtion; but chiefly good for ſuch as by exquiſite diet do go about to cure the pox. This Panade doth not heat as bread doth of it ſelfe, not being waſhed, or prepared thus in Panade. The meale of Amydon made in bread or pap-meat, doth nouriſh in like manner that Panade doth. Wee haue ſet downe before how Amydon is to be made. Young children that ſucke in like manner may be

Waſhed bread.

be fedde with Panade, and it is a great deale better meat for them than the pap-meate accustomed to be made them with Cowes milk and Wheat flower, because that such pap-meate causeth infinite obstructions, feauers, headach and wormes.

Some vse the meale of certaine sorts of corne, and of many sorts of Pulse, after the manner of pap-meate, as we haue alreadie said vvhen vve spake of mundified Barley, which is a thing so highly commended of auncient Physitions. But besides such manner of preparing of it, as vvee haue alreadie 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 vvater, 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 thus: take the meale of Barley well sifted, put it in a bag, and boile it in a great quantity of water, the space of fiue or six houres, afterward draw the bagge out of the pot, and let it drop, and straine it in a presse: let it stand & drie, and being drie, grate it as you would doe drie paste, and make mundified Barley of it. Some are of iudgement that Barley thus prepared is not so windie. Some do now and then put vnto it bread crummes and bruised Almonds, to make it more nourishing. It moistneth, nourisheth reasonably, but cooleth much: it procureth not any gripes in the body, neither doth it puffe vp and swell the body or stomack; but to be briefe, it performeth all the helpes whereof *Hippocrates* speaketh. Some likewise doe make pap-meate of Wheat meale and Rice, which in truth doe nourish more than mundified Barley: but they loade the stomacke heauily, and cause great windinesse, and that because, for the most part, they are boiled in Cowes milke. The pap-meate made of Millet, Pannicke, Oates, and especially of Lentils, besides that they are very vnpleasant, are of very hard digestion, in so much, as that the day after they be eaten they are to be found in the stomacke. The pap-meates made of Cich Pease, Fasels, Beanes, Fetches, Lupines, and other such like pulse, doe swell vp the bellie, and beget grosse and melancholike bloud.

Chap. XXII.

Of Pastrie or baked meates.

Vee haue spoken of the making, differences, and profite of bread, which may be made of any manner of graine, corne, or pulse: now vve will say somewhat of the skill to make Cakes, Cheese-cakes, Flawnes, Tarts, and other baked meats, the which we desire to be in our housewife, that now and then she may take occasion at some times of the yeare, to present her Master and Mistresse with one dish or other, as also be able to serue and set before her family somwhat 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 countrie 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 Searce, whereunto many other things being added, doe cause a varietie of baked meates. That it is so, some make Wafers of the flower of Wheate meale verie well soked in water, and tempered a long time therwith, vntill it come to a certaine thicknesse, mixing therewith a little salt finely powdred, and after causing the same to bee baked betwixt two irons made hote, 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 dayes. There may bee made a tenderer and more delicate kinde of Wafers, in soaking the flower of the Wheate meale in white wine and water mixt together, and throughly laboured and wrought, putting thereto afterward the yolkes of Egges, a little Sugar and Sal, and

so

ſo baking all togerher betweene two irons, hauing within them many raced & checkered draughts after the manner of ſmall ſquares, after that the ſaid irons haue beene annointed with freſh Butter or Oile oliue. This ſort of Wafers is wont to bee ſet on Tables at the ſecond courſes in ſolemne banquets. That which the Pariſians do call *Meſtier*, is made of the ſame flower of Wheat meale, tempered vvith vvater and vvhite vvine, putting thereto a little ſugar, and boiling it all betwixt two irons, after the manner vvhich you vſed in making of Wafers, but that it muſt not be altogether ſo thicke. The kinde of Wafers called *Oublies*, are made vvith Honey in ſtead of Sugar. Singing breads are made after the manner of *Oublies*, ſaue only that the meale whereof they are kneaden is not mingled vvith Honey, Sugar, or any manner of Leauen whatſoeuer. *Eſtriez* and *Bridaneaux*, and ſuch other daintie baked things, are made of the ſame ſtuffe, and after the ſame manner that fine Wafers are, before deſcribed. Marchpanes are made of verie little flower, but with addition of greater quantitie of Filberds, Pine Nuts, Piſtaces, Almonds, and roſed Sugar; and they are the moſt vvholſome, delicate, and pleaſant tarts, of all the reſt. The Poplins are made of the ſame flower, kneaden with milke, yolkes of egges, freſh butter. The leaued cakes take not ſo much flower, and they are made vvithout milke. Tarts are made after diuers faſhions, and according to the time: ſome with fruits, that is to ſay, Apples, Peares, Cherries and Plumbs, eſpecially in Sommer: others with Gooſeberries, kernels of Crabs and Straw-berries in the beginning of Sommer. The Italians do make Tarts of hearbes, as Scariole, Lettuſe, Blites, Sorrell, Bugloſſe, and other hearbs chopt ſmall, and finely tempered together. The greateſt part doe make them with Cheeſe or Creame, and many of all theſe things mixt together. If ſo be that the Tarts 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, Flammickes, Cheeſe-cakes, Talmouſes and little Lenten loaues. Wigges are made with paſte of flower of meale and freſh butter. Fritters and other ſuch ſweet conceits accuſtomed to be in requeſt vpon great daies and before Lent, are made of the flower of meale, kneaden with the yolkes of Egges and Milke, and fried in a Skillet with freſh Butter. To conclude, looke how many countries, ſo many faſhions of paſte workes: in all which notwithſtanding this is for the moſt part common, namely, that they vſe not any Leauen in any of them all, but onely the riſing of Beere, and that becauſe Leauen made of paſte would make them too ſowre, or infect them vvith ſome other taſte too vnpleaſant and vnbeſeeming baked meate, and hinder the whole and intire incorporating of things mingled amongſt the meale whereof it is made.

March-panes.

Tarts.

Yet all this formerly ſpoken of, doth not ſo truely belong to the Paſtrie as to the Confectionarie or Cloſet of ſweet meats, tarts only excepted: yet in as much as they are principall ornaments to the houſewife, they are not meet here to be omitted. To come then to the true Paſtrie, which is the making of thoſe paſtes vvhich are meet for the lapping in or containing of all manner of baked meates, whether it be fleſh, fiſh, rootes, hearbes, fruits, or other compoſition whatſoeuer; you ſhall vnderſtand that they are of foure kinds: the firſt for the preſeruation or long keeping of meats, whoſe proper and true natures are to be eaten colde, as Veniſon of all kindes, Kiddes, Beefe, Veale, Mutton, Lambe, Turkeyes, Gamons of Bakon, or any great or daintie fowle: the ſecond for the containing of looſe bodies, as Douſets, Cuſtards, Tarts, Cheeſe-cakes and ſuch like: the third for the receiuing of fine, daintie, and tender bodies, as Chuets, Vmbles, Chickens, Calues feete, or any other good thing which is to be eaten hote: and the laſt is that vvhich is called puft paſte, being of all other the moſt daintieſt and pleaſanteſt in taſte, and may be imployed to any vſe that any of the former vvill ſerue for, according to the fancie and skill of the Cooke, or the taſte of him that is Maſter of the Familie. To ſpeake then firſt of that paſte vvhich is for the preſeruation of meats, or to keepe them longeſt cold in good and vvholſome temper, it is euer beſt to be made of Rie flower, finely boulted and kneaden vvith hote vvater, and barrelled butter, yet in ſuch ſort that the paſte may be ſomewhat ſtiffe and tough, and thereby verie apt to riſe vvithout cracking or breaking, vvhich is the greateſt danger

ger belonging to this kind of paſt, and the coffins raiſed hereof muſt be very thicke and ſubſtantiall, for thereby they preſerue their inmeats a great deale the better, and they muſt alſo aboue all things be exceedingly well bakt, becauſe any doughineſſe or rawneſſe in the cruſt ſoone putrifyeth that which is baked within it: theſe paſtes may alſo for ſhew or feaſts (though worſe in regard of continuance) be made of wheat meale finely boulted, and then it would haue much more butter than the rie paſte, and be knodden as ſtiffe as is poſſible, ſo it riſe without cracks or breaking: as for the baking it asketh much leſſe than the rie paſte, in as much as it is a drier graine and not ſo moiſt in the working. The ſecond paſte which is for looſe bodies, or any thing that is liquid, would be made of the fineſt wheat meale that can be gotten, and of the fineſt boulting: it muſt be knodden with hot water, a little butter, and many egges, both to make it light and ſtrong in the riſing, as alſo to make it hold from cracking, leaſt thereby the moiſture runne forth and ſo you looſe both coſt and labour: This paſte is commonly halfe bakt before you put the moiſture into it; for thereby it is made to hold much the ſtronger and better. The third paſt, which is for all maner of daintie things which are to be eaten hot, muſt be the tendereſt, ſhorteſt, and pleaſanteſt of all ordinarie paſt, and therefore muſt be made of the fineſt wheat flower you can get, and alſo moſt finely boulted: and this flower if before you knead it, you put it into a cleane earthen pot, and bake it in an ouen an houre or two, it will bee much better: it muſt be knodden with two parts butter (either freſh or ſalt) or with ſweet ſeame, and but one part hot water, together with an egge or two to make it hold ryſing, and this paſte muſt be made reaſonable ſtiffe, becauſe the weake paſte euer falleth after the hand, and either riſeth not at all, or elſe ſo little that it is not comely to looke on, which euerie good cooke muſt ſhunne, becauſe that pie which is as much couer as cruſt is euer a ſigne of an vnskilfull workman. Laſtly for the puffe paſt, you ſhall make it of finer flower (if it be poſſible) than any of the other, and you ſhall to two parts of the flower adde a third part of ſugar finely beaten and ſearſt: and this you ſhall knead with cold butter and no water at all; and euer as you fould, turne, and mould the paſte about, ſo ſhall you put cold ſweete butter betweene the foulds, and ſo worke it to a very ſtiffe and well tempered paſte, and ſo roule it forth either for tart, florentine, paſty, or any other thing that may lie flat in the baking; for by reaſon of the much brittlenes and tenderneſſe of the paſt, it will not abide any higher raiſing, but will fall one leafe of the paſte from another, and ſo looſe the ſirrop or grauy which ſhould be held in the ſame: which to preuent and to make the cruſt a great deale the more delicate, whenſoeuer you intend to bake any paſtie of fallow or red Deere, or any other fleſh to be eaten hot, you ſhall firſt knead a ſufficient quantitie of the ſecond ſort of paſte which is for liquid bodies, and hauing rouled it forth as thin as conueniently you can, and of a ſufficient largeneſſe to receiue that which you are to bake, you ſhall then knead another quantitie of the puffe paſte and roule it likewiſe forth, (yet much thicker) and then lay it vpon your firſt tough paſte, and then put in your meate, ſuet, ſpice, and other neceſſaries, and ſo in both thoſe paſtes fould it vp cloſe and ſo bake it, and you ſhall find when it comes to eating that the inmoſt of thoſe two cruſts will giue that admirable content which any curious taſt can deſire: and thus you may bake any other pie by making two coffins to paſſe one into another, and cloſing them vp and baking them with a moderate heat, for this paſte of all other muſt by no meanes bee either burnt or ouer-dried, but by all artificiall meanes be kept in the ſtrength of his moiſture; and beleeue in all the art of cookerie there is not any knowledge (except ſeaſoning) which is more excellent or more worthie to be imbraced of euery good huſwife: and yet all manner of baked meates are more for the pleaſing of the taſte than for the health of the bodie, in as much as they are giuen to load the ſtomach very heauily, and not to digeſt verie 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 vitailes downe into the bottome of the ſtomach, and to preſſe together the bellie.

CHAP.

Chap. XXIII.

Of the brew-house.

THe vine cannot grow in many places of France to prosper: but to recompence such a want, there groweth all sorts of corne very fruitfull and in great aboundance, as in Normandie, Brittanie, Picardie, and other coasts lying vpon the North side of the land, where the cold seaseth most strongly, and where the rugged and sterne windes do ouerblow the earth with their coldnesse; so that in those countries, necessitie, the mother of all skill and cunning inuention, hath stirred vp the men to deuise some kind of drinke made of corne to serue them in steed 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, 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 barley and oates that may be gotten, being prouided, and thrice as much barley being taken as oates, but of both such a quantitie as may bee proportionable to the intended quantitie of beere, they put them to steepe together in a fat for the space of foure and twenty houres more or lesse, according to the age of the corn in a sufficient quantitie of riuer water, rather than 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 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 grind 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 quantity of the meale, that is to say, foure barrells of water, and a tun and a halfe of water to foure seame or quartets of meale, leauing the same for the space of an houre to drinke in this water, afterward they put the meale aside with their stirrers: being thus cleered the one from the other, they poure in as much boyling water as they did before; then afterward they take two maunds (made like vnto bee-hiues) 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 end 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 poure it into another fat close by: Then they take all the wort or drained water and poure it into some sufficient large copper, holding betwixt fiue or sixe tunnes more or lesse, causing it to boile in a furnace a good houre, and afterward emptying the copper of the boyling water that is therein, they put it in with 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 liquor, as cleere as may bee, by a stopple which they haue for the purpose in the bottome of the fat, and that they poure againe into the copper suffring it to boile there for the space of twelue houres: and into this thin cleere liquor being thus in the copper, they put some fiue or sixe pounds of the flowers of hops very drie and sweete. When the hops and liquor shall haue thus boyled twelue houres, they emptie the copper againe, and put the wort to coole at leasure into other vesselles called flotes or coolers, and they be broad like vnto the fats, but only one foot deepe. When it is cold, they put it to turne into a small vessell containing a 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 *Beere rising.*

out of the Fat, when the best and cleerest Wort is newly turned in and falleth to the bottome in the Tubs, which froth turneth into Leauen, 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 meats: they renew the force and strength of yeast or leauen euerie houre with Beer alreadie made, so long as till the said leauen or yeast become strong enough of it selfe; which you shall know vvhen you see that it is well risen: euen as vworkers in paste do ghesse and gather, vvhen they see their paste well risen. The Beer being sufficiently ripened and leauened, they tun it vp into barrels or halfe barrels, & there they let it boile and vwork 24. houres in their said vessels, then they bung vp the said vessels, and giue them vent somtimes, for otherwise they vvould burst. And thus much concerning the maner of making of beere amongst the Parisians: for vvith this beere thus made they content themselues, & it endureth all times & seasons, & standeth out good both Winter and Summer, Harvest and Spring. And vvhereas it goeth for good payment and sound, that the beere brewed in March is the best, it may posibly be so, by reason that then the hops are in their prime and chiefest force and vertue.

The Germans doe make their Ale vvith Barley 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 stead or for want of the flowers of hops, they put in of the seed of the said hops.

The Bohemians and Polonians doe make theirs vvith Barley and Wheate, vvhich they steepe in the decoction of the seed or flowers of hops, so greatly standing vpon the requisitenes of their hops thereunto, as that they vvere vvont to punish grieuously such as did cut downe, or vnprofitably destroy any hops amongst them. Again they husband and dresse their hops as carefully as vvee doe our Vines: they gather the flowers and fruit at a certaine time, not suffering any thing to perish and be lost: in as much as the decoction of hops doth not onely ferment and leauen the corne & graine that is steept therein, but vvithall indueth the Ale or Beere vvith a resemblance of some sort of Wine.

The English, Flemmings, as also the Picards, do make their beere with equal quantitie of barley and vvheat verie vvell boiled, vvhich the Englishmen and Flemmings doe call Ale and Gud Ale, or double Beere, and the Picards call it double *Quoite*. 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, do put into the vessels Sugar, Cinnamom, and Cloues, stirring and rowling the said vessels afterward verie much. The Flemmings also doe mixe therewith sometimes honey and spices, and make, as it were, a kinde of hippocras, vvhich they call Mede or Mete. But howsoeuer, according to the mingling, steeping, fermenting & boiling together of the grain, in vse for the making of their Beere: so the beere becommeth sharpe, bitter, sweetish, waterish, strong, mightie, weake, cleer, troubled, more or lesse durable, and of other such like qualities.

Yet to speake a little more particularly of the English, which are indeede the true masters of Beere and Ale, for as yet I haue but roaued wildely at their practise, You shall vnderstand that generally they haue but these two drinkes in vse, that is, Beere and Ale: and of these they haue diuers kindes, as first strong Ale or good Ale, then middle Ale, and lastly small Ale: so likewise of Beer; they haue March beer, Household beere, and smal beere: the first is for strangers, the second for the Master, Mistresse and better sort of the familie, and the last is for plow-men or hinde seruants. As touching the making of these seuerall drinkes: all Ale, of what kind soeuer it be, is made of the best, cleanest, and sweetest Barley mault that can be got, without any other mixture, except it bee in those countries where Barley will not grow, and then Oatmeale will serue, or Oatmeale and Barley mault mixt together, according to the wealth of the Farmer. Now foure bushels of good Barley mault vvill make a barrell of strong Ale, another barrell of middle Ale, and halfe a barrell of small Ale. The generall

nerall vse is by no means to put any hops into ale,making that the difference betwixt it and beere,that the one hath hops,the other none: but the wiser huswiues do find an error in that opinion, and say the vtter want of hops is the reason why ale lasteth so little a time, but either dyeth or soureth, & therefore they will to euery barrell of the best ale allow halfe a pound of good hops: ale asketh lesse boiling than beere, and so a little lesse cooling except it be bottle ale, & then it must not only be coold sufficiently, but also blynckt a little to giue it a quick & sharp tast: as soone as you haue drawn of your best ale, you must put in your middle ale,and as soone as you draw of it, you must put in your smal ale: your best ale must be barmed as soone as it is coold,and after it hath risen and wrought,and bin diuers times well beaten in,then it shall be tund in open or close vessells, but the open is best if it be soone spent, and the close best,if you must let it lie long: as for your middle or small ale,they would not be barmed all at once,but kept and put to barme as you haue occasion to spend it, that is to say,some at one time & some at another. Now for your beere you shall vnderstand, that your March-beere, which is so called,because it is commoly brewed in that moneth as being the principal of all other,would be made of the best barley malt that can be got, for no oate-malt of it selfe will make the same: and to euery quarter of good barley malt you shall adde a pecke of oats,a pecke of wheat, & a pecke of pease,and grind them all together, and they will make a hogshead of March-beere, an hogshead of houshold beere,and a barrell of small beere: to this proportion of malt you must allow also three pounds of the best hops; but if they be but indifferent,then you must allow a better quantitie: you must boile it well, then mash it, then boile it very well the second time with the hops, then drawing it from the hops put it into the coolers and coole it, after put it to barme,& beat it in as you did your strong ale many times for a day and a night together,then tun it,and after it hath purged well in the hogshed or other vessel, then close the bung hole, and giue it vent as occasion shall serue, and so let it lie till it be ripe,which will be in no lesse space than three quarters or halfe a yere at the soonest: as for your beere of the second running, you shall vse it like the first,and both put it to barme & tun it in the same maner, only it will be ripe in foure or fiue weekes at the furthest: but for your small beere,you shall vse it like your small ale,and put to the barme as you haue occasion to drinke it. There is another kind of brewing of houshold beere (for this before mentioned is but for one moneth in the yere) and that is to allow to euery hogshead of beere halfe a quarter of barley-malt, which is a good proportiō for the familie either of nobleman,knight or gentleman: and to euery quarter of malt a pound and a halfe of the best hops: as for the second running of this beere(for it will beare but one besides the best)it will either be good for hind seruants,if such be in the familie,or else be an excellent reliefe for such as labour hard for their liuing. The graines,washings of tubs, and all other excrements which fall from the brew-house, are a very good food for swine, and keepe them in good plight till they come to be fatted for the slaughter.

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 ful of many tender eares of wheat, and there leaue them a long time: and if it begin to fade and weare out of heart,hang two or three whole egs in the vessell. If it haue lost its good relish, you may recouer it againe by casting into the vessell the roots 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 barley by nature is cold, neuertheless by meanes of the steeping,fermenting, putrifying, killing and boiling, that it endureth whiles the beere is making,it is impossible but that it should be made and become somewhat hote, then furthermore the hops, whether floures or seeds, being mixt therewithall, doth by its heate, temper and alter very much the naturall coldnesse of the barley. If that wine(as *Galen* saith)be nothing else but a water, which in processe of time purchaseth a hot substance to it selfe in the stocke and woodie parts of the vine, by the *The temperature of beere.*

meanes and force of the heat of the Sunne, in like case, barley in the making of beere purchaseth a heate by his long lying in steepe, boiling and putrifying which it indureth. Againe the tast and relish of beere doth argue the same to be hot, seeing if it bee good it must be either sharp, or bitter, or sweet; for that which is sowre or sharpe, like vineger, or eager, is not good nor well made: The effects of beere do likewise proue it to be hot, for it maketh drunken, yea and that a great deale more than wine doth, by reason of its vaporous and thick substance: it feedeth also and nourisheth, especially that which is made partly of wheat or the graine called furmentie. Yet further, if it be distilled in an alembecke, it maketh Aqua vitæ, no lesse than the wine. It is true that beere though it be hot, 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 very small quantitie of hops, is the least hot of all the rest; and that in such sort as that it becommeth a fit drinke to quench the thirst and to coole the bodie during the scorching Sommer heat: that which is made of barley and oats is a little hotter: as that which is made of barly and wheate is yet more hot and very much giuen to feed and nourish. But howsoeuer, all beere of what corne soeuer it be made, is of a more thicke substance and harder of digestion than wine, and which (if either it be ill boyled, or newly made or troubled,) ingendreth obstructions and inflations or puffing and swelling vp of the inward parts, headach, colicke, stone, grauell, strangurie, and heat and scalding of the vrine, especially if it bee sharp withall: if it be too old and drawing toward sowrenesse, it hurteth the stomach and sinuie parts; as also it begetteth the leprosie, if we will beleeue *Dioscorides*: And therefore you must learne to drinke only such as is well boiled, fined, and growne to a meane and indifferent age.

Notwithstanding that beere (as *Dioscorides* will haue it) be enemie to the sinewes, and that those which are drunke by taking excessiuely of the same, haue their members and parts more weake, than 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 do but foment and bathe their feet in beere reasonably warme.

The fatting of hens and capons You may fat your hens and capons in a short time, if in steed of water you giue them beere to drinke, or if you mingle their meat with beere.

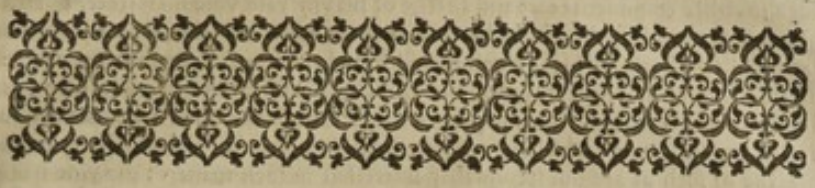
Toothach. If you boile new hops with beere and keepe them in your mouth, it will stay the toothach.

Bakers or makers of baked meats (as we haue said before) do vse (in steed of leuen to knead their crust 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 vessel The grounds of beere doth serue to polish and scoure brasen vessell, if they bee laid to steepe therein some certaine time.

The end of the fifth Booke.

THE



THE SIXTH BOOKE OF THE COVNTRIE HOVSE.

The Vine.

CHAP. I.

Of the profit rising of a well dressed Vine and Vineyard.

Itherto wee haue intreated of the husbanding, tilling, ordering and dressing of garden plots, orchards, and arable ground: it now remaineth that we speake of the vine, wherupon for certaintie dependeth the greatest part of the reuenues and riches of a house-holder, howsoeuer many make small account of the vine, and do more esteeme to haue possession of meadowes, pasture, woods, and other grounds, than to stand to the reuenues growing by vines, in as much as for the most part they yeeld not the fruit which may recompence the charges laid out about them: But for all this the vine is not to be discredited, seeing this is not the fault of the ground, but of the people that till it, and either for couetousnesse or ignorance, or negligence offend in the tilling thereof. It is true that the husbanding and ordering of the vine is chargeable, painefull, and a matter of great care, by reason of the tendernesse 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, than to bring forth the excellent and pretious liquor of wine, which is so needfull for the sustentation and life of man: for if it were fit for any thing else, as the wood of other trees is, it would be imployed, and wine thereby would become a great deale more deere than it is.

The greatest part of vine dressers do not esteeme in what ground the vine be planted, but do make choice of the worst quarter in all the country, as if the worst ground, and that which is good for nothing else, were the best to plant vines in. Others haue not the iudgement to know and chuse their plants, and for that cause doe oftentimes plant their vineyards with such young vines as are nought. Againe many hauing no respect of the time to come, do in such sort order and dresse the vine, as if they thought to liue but an houre, burdening and loading it with so many branches and shootes for propagation, and leauing vpon it so much wood, as that it cannot prosper any long time. Others although they know the way to order and dresse it well, do yet continually omit certain courses and seasons, as being more busily imployed about their own profit, than their maisters wel-fare.

Likewise I would alwaies aduise the Lord of our countrie farme, that hee would not altogether commit the care and charge of his vineyard vnto his farmer, but that he himselfe would lay the chiefe burthen about it, vpon himselfe: for as the masters 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 bee 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 interesled in such matters: the vine being such a peece of inheritance as wherein euerie small fault committed, doth draw after it great losse, and such as oftentimes cannot bee 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 Beauuoies, and those of the duchie of Burgundie (which haue large grounds imployed in vineyards) to complaine themselues of their vines, and that because themselues take the whole care and reserue the principall ouersight vnto themselues. On the contrary, the Parisians haue no other complaints or agreeuances to talke of but of their vines, and that because they credit deceitfull and ignorant workemen to sway the worke; whose couetousnesse, ignorance, and negligence is for the most part the cause that they reape not the fruit of their vines in such plentifull manner, as they should, or at the least that the fruit which they doe reape, is not so durable as it would. And this you must thinke that vines will yeeld a larger reuenue a great deale than gardens or other areable grounds, if they bee well and diligently husbanded; for there are few arpents of vines to be found which yeeld not euery yeare, one yeare helping another, ten or twelue tuns of wine which is a great reuenue, and yet remaineth vnreckoned a great 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 amoune to more than will satisfie and aunswere all the costs and charges which are laid out any maner of way about the vines: wherefore either the reuenue 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 countrie farme, to looke to the ordering and dressing of the vines himselfe.

The Parisians negligent ouerseers and husbandes about their vines.

Chap. II.

What soile and aire the vine doth most delight in.

Two things 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 than 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 mightie by the vse of it, than other menare, which for want of it, are forced to vse other drinkes.

As concerning the soile to plant it in, there must two things be considered, the qualitie 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 qualitie of the ground, you shall chuse 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, & yet somewhat the rather inclining to the fat, not champion, nor a very plaine and flat, (and yet in such grounds there grow more wine) neither very stiffe and straight, but rather somewhat raised than otherwise, that so it may bee the better aided and succoured by the fauourable beames of the Sunne, neither drie nor moist and watrish (because that in such kind of ground the vine continueth not long, neither doth it bring forth good wine, but such as is quickely perished) and

and yet indifferently ſerued with vvater: not ſuch a one as hath any freſh ſprings or fountaines, either breaking out euen with the vppermoſt face of the earth, neither yet carried along within, in the depth of the earth below, but only in ſuch ſort, as that neere vnto them there may be water to moiſten their rootes withall: and the ſame moiſture muſt not be either bitter or ſalt, to the end that the taſt and ſauor of the wine may not be ſpoiled. So that by this it appeareth that it is not meet to plant Vines in deepe and low valleyes, albeit they might, and would bring forth grapes in great abundance, and that becauſe they would not ripen in due time, and ſo there would be made of them no better than a green vvine of ſmall value: adde hereunto, that Vines ſeated in low valleyes, 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 runne out their iuice and to rot, vvhich vvould cauſe a muſtie and foughtie taſte in the vvine: and therewithall, vvhen the yeare is rainie, the kernels cleaue and burſt out through the abundance of moiſture; by reaſon vvhereof the grape being in this ſort too much moiſtened, and nothing at all dried, the vvine becommeth vnſauorie and apt to grow ſowre, and fall into many other faults. And if you happen to light on ſuch a place, then chuſe to plant there ſuch plants, and yong ſhootes as may beare cluſters, not too thicke ſet, but growing ſomewhat thin, that ſo the Sunne may pierce through them: much leſſe may you plant thoſe Vines vvhich haue their pith taken out, and bring forth a firme and ſolid grape, in cold and moiſt grounds: as neither yet in a hote and drie ground, ſuch Vines as haue ſubſtance enough in them, and beare a grape ſomevvhat ſoft. But chiefly, if your place be ſo well appointed by nature, as that it conſiſt of and containe grounds that are fit and meet vpon the tops of great hills, together vvith ſome low and ſmall hills, then make choice of them to plant your Vines thereupon. It is true that it vvill hardly grow there at the firſt, but hauing once taken roote, it vvill yeeld a verie pleaſant and noble vvine, ſuch as the vvines of Ay, Hadre, Argentueil, Meudon, and Seurre be.

In generall, if you vvould plant a Vine vvhich may profite you in bringing forth abundant ſtore of good fruit, you muſt ſee that the ground be gentle, eaſie, fine, and indifferent light to be ſtirred: not as though ſuch a ground onely vvere good for Vines, but for that it is moſt kind, naturall, and beſt agreeing for Vines to be planted in ſandie, ſtonie, grauelly, and flintie ground, as alſo ſuch as conſiſteth of a Potters clay in the bottome, and couered ouer with earth is good, prouided, that they be intermingled wirh ſome fat earth, and that they be often refreſhed by being digged euen to the veine of ſtones, or rocke. In a ſandie, clayie, and churliſh ſtubborne ground, the firſt digging and caſting of it muſt be good & deepe: and ſuch grounds alſo would be thriſe digged or caſt at the leaſt. Such grounds bring forth ſtrong and delicate vvines: but ſuch grounds as haue of ſtones or flints great ſtore vpon the vppermoſt face of the earth, are not fit for Vines, becauſe in Summer they ſtand at a ſtay, by reaſon of the great heat of the Sunne, being beat back vpon them by the ſaid ſtones: and they doe no better in Winter, becauſe of the exceſsiue cold which in like manner then troubleth them. True it is, that if a Vine be planted in a grauelly, rockie and ſtonie ground, that then it will not be needfull 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 *Iocgny* vpon *Yonne*, is verie good for Vines, but the ground 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 verie little: and there alſo the new planted Vineyard is very ſubiect vnto the hauing of his grapes waſhed away. The drie and burning earth doth yeeld leane Vines if it be not helped by the dunghill.

What aire is fit and requiſit for the Vine.

As concerning the power of the Sunne, and diſpoſition of the ayre, the Vine delighteth not to be planted vpon the tops of mountains, and much leſſe in places lying open vnto the Northeaſt winde: but it delighteth in an ayre that is rather hote than colde, and faire rather than rainie: it cannot abide tempeſts and ſtormes: it reioice-

eth in a small, gentle, and friendly winde, and would bee turned toward the East or South. It is true that generally in cold 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 winds, as well of the South as of the East: if the place be subiect to Winds, it will be better that it should be to the Northerne or Westerne Windes than 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 very difficult thing to find all these commodities and good properties of ground and aire in euery countrie: the good workeman 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 young plant of a small vine, and such a one as beareth but little, as the Morillion, the Melier and the Aubeine: and in a leane ground the plant that is very fruitfull, as that of Samoureau, Tresseau, Lombard, Ouch, Muscadet, Beauuois, and Pulceau: in a thicke and close ground, the plant that is strong and putteth forth great store of wood and leaues, as that of Morillion, Morlou, Tresseau and Pulceau: in a small mould and reasonable fat ground, the plant which putteth forth but a little wood, as that of Samoureau, Lombard, and Beaulnois: and by this meanes the defect and want, or the excesse and superfluitie of any qualitie in the young 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 young plant which is giuen to beare tender and grosse grapes, as that of Samoureau, Gouet, Mourlous, Pulceau, Cinquaine, and Tresseau. In places tossed with winds and stormes, he must prouide to plant such a kind of vine as is woont to bring forth 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 mild. In drie countries he must plant those vines, the fruit whereof is woont lightly either through raine or the dew 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 drinesse. In countries which are troubled with haile, such as are of a hard and large leafe, for such are able the better to defend and couer the fruit.

Chap. III.

How that there is not planted any vine by the way of making a seed nurcerie, except it be onely for pleasure.

I Am of that mind, that a man cannot but hinder and iniurie himselfe in making nurcerices of vines, for besides that the tree doth not grow sooner of kernels than it doth of the plant, there is also this inconuenience, namely, that the vine growing of knernels doth not yeeld any thing of profit 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 sow seeds out of some strange countrie, afterward to raise a nurcerie of stocks of the same when they are growne vp for to bee transplanted and remoued into a better ground, and that they may graft thereon, and afterward againe remoue the stockes so grafted into a better ground also, that so about two yeares after they may reape the fruit thereof, which is woont to be both great and daintie enough: but yet this same new vineyard thus planted is the least durable of all others. Againe, in this countrie wee doe not trouble our selues in planting vines to runne vpon trees, in such sort as any

Vines vpon trees.

man

man may easily see that they doe in Lombardie 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 proueth so good, as well because the root of the tree is corrupted, after the maner as it falleth out with coleworts; as also because this plant loueth not to be hoised and mounted too high, neither yet shadowed with any building of timber-worke, higher than the stature of a perfect man.

Vines after the fashion of an arbour.

Chap. IIII.

How that before you plant your vine, you must learne out what wine the earth will beare, where you are purposed to plant it.

WHosoeuer doth purpose 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 trial 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 aunswere and content your expectation. Thus then you may trie and proue your ground: make a pit in the ground where you meane to plant it, of two foot 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 verie cleane, mingle and beate together 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 cleerenesse of the glasse which will follow thereupon: and after that the earth is throughly setled, tast the water, and looke what relish or tast it hath, such would the wine be; and therefore a vine yeelding such a relished wine fittest to be planted there: therefore if you find therein a bitter tast, a saltie or allum like, or any other such vnpleasant tast, auoid and cease to plant any vine in any such ground. Which if it be true, then to dung and manure vines is altogether to bee condemned, because 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 yeare by yeare such great quantitie of dung, and that is the cause for the most part, why their wines haue an vnpleasant tast, and doe easily and very quickely corrupt: and yet further the dung doth cause the vines to grow old by and by and become barren, because they put forth all their goodnesse the first yeare.

How to trie what wine the ground will best beare.

To manure vines is a dangerous thing.

Chap. V.

Of the choice of young vine plants.

THe choice of young plants whether they bee 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 said young plants, neither yet for the goodnesse of them, but altogether to his diligent & heedfull care which is the workemaster: and for that cause it were best for men to take them of their owne vines, or else at least to haue those which hee shall buy, warranted to bee good: he must also haue regard to the quality of the aire and situation of the ground where

The choice of young vine plants.

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 chuse the young branches of vines which he will plant from the same part and quarter: if he meane to plant them in a high place, hee shall gather the plants vpon some high and tall vine: and if low, then out of some vineyard that is very low: planting in a hot, cold, drie, or moist ground, hee shall chuse his plants for the renewing of any failing or decaied, of the like situation: by this meanes the plant will fasten the sooner in the ground, and it will bring forth fruit sooner and a great deale better than if it should bee otherwise. Likewise hee must not keepe the young plant any long time before hee plant it: for, no more than trees which are to bee remooued, can the vine well and easily endure after it is cut to bee long vnplanted: neither yet would it be carried far, or remoued out of its owne soile into another, because it feareth the change of earth and aire: and thereupon it commeth that the young plants brought out of strange countries, as of Beaune, Rochel, and Burdeaux cannot prosper so well in our soile, as those which grew there first. To make good choice therefore of crossets to plant new vines of, you must see that the vine from which you gather such Crossets bee but sparingly furnished with pith, because that such a one is not onely fruitfull and bearing aboundantly, but because also it is not so subiect to the iniuriousnesse of time, as Snow, Fogges, Frostes, and the burning of the Sunne in the time of Sommer, as those which haue much pith in them: afterward when the vines beginne to bud, you must diligently view, about the beginning of September, those that are most laden with grapes, and which are most fruitfull, and haue most eies in their branches, which haue not beene iniured or hurt by the hardnesse of weather, and which are neither young nor old, but in their chiefest strength, and 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 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 its 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 euery side, that so the aire may not any way wrong it: or else, if it bee to bee 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 drie by nature. The vine-dressers of the duchie of Burgundie before the planting of crossets do cause them to be steeped one whole day or a night in running water, and find by experience that the said crossets do take more easily. Others cause the branch to be set and planted by and by, that so it may take the sooner.

Chap. VI.

The manner and way to plant Vines.

THe first casting of the earth for to plant the vine, must bee done in the Spring or Sommer, in which first digging or casting of it, the ground must bee cleansed of all superfluities, as rootes, weeds, and stones: it must be digged and renewed oftentimes, to the end that the earth which is vppermost, may bee brought vnto the bottome, and that in the bottome may bee turned vppermost, to moisten and refresh that which is drie, and to heat and drie that which is moist & thick, and afterward made euen and cast into many furrows & pits of a foot and a half breadth, & depth, till you come to the hard stone in the bottome, and the knights or guids of the one side & the other, of such a thicknes aboue, as may answere

Chouakers.

aunſwere to the depth of the furrow, which yet muſt be made hollower in a rough and crabbed ground than in ſandie, flintie, or wet ground: in the bottomes of the ſides of which furrowes, there may bee put ſtones, ſo that they bee no bigger than a loafe and couered with earth, for the cooling of the vines in the heat of Sommer, as alſo to the end that vpon great raine, the water may find paſſage, and not ſtand at the rootes of the plants. Whereupon your ground being well laid with ſtones in this ſort, and reſted and ſetled after the firſt dreſſing 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 bee, and the nature of your ground: prepare, make readie, ſharpen, aud cut off the root and hairie threeds of your young plants, and fit them well for the South Sunne: plant them in the middeſt of the furrow, in the plaine flat, where your foot vſeth to tread, and one right ouer againſt another, and after the maner of a Burgundian croſſe, for to make them (after that they are couered with earth, and old made dung, or with the earth which hath beene caſt out of the furrowes, and thrown on 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 bee 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 bee taken vp, to put in place where others haue failed: For howſoeuer the plant ſet of a croſſet may make the better foot and root, yet for certaine it is harder to take than the marquot, although the marquot be not ſo laſting and of ſuch continuance, in as much as the croſſets do put forth rootes of themſelues. Furthermore, you muſt cut off the greateſt wood, and moſt knottie from the vine ſtocke, which you know to bee the faireſt and moſt fertile, and it muſt conſiſt both of old and new wood: It continueth foure yeares without fruit, and on the other ſide, without ſome misfortune it is ſeene to continue thirtie yeares in his vigour and luſtineſſe. After it is cut off, it muſt be cut fit not leauing aboue three or foure ioints at the moſt, two wherof (in planting it) may ſtand aboue ground: and if it haue put forth any cielet, 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 *En godeau*, after the *Angeuin* faſhion, ſetting euery one diſtant from another two foot, one marquot betwixt two knights or guides as is vſually obſerued in planting of ſtocks in the nurcerie of fruit trees: and after that to leaue it foure yeares in the ſame ſtate, that it may be laid downe againe when it is growne, that is, ſome two or three yeres after it hath put forth ſtrong and able wood, in ſuch ſort, as that to vines ſo planted there need no propping or vnderbearing; for the chiefe and principall foot as it is in trees, doth ſufficiently beare vp the ſiences putting forth 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 euery two, which nothing hindereth by his ſhadow either their growth, or the Sunne 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 heretofore ſaid, 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.

The marquot would be planted as ſoone as it is raiſed from his ſtocke, with his whole furniture of twigs, and that alone in the middeſt of the furrow, becauſe 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 great length: it groweth ſooner (as hath beene ſaid) than the croſſet; but in like manner as the grafted one, it indureth the leaſt and ſhorteſt time of all the reſt.

To plant the marquot.

After that you haue planted your croſſets or marquots, you muſt bow them wel at the foote to make them take roote, and afterward caſt downe the earth of the ridges both

both of the one side and the other, that so it may fall vpon the said plants. At Chablyes, Touuerois, and Auxerrois, in planting of marquots (but not hauing any hairie rootes) they writhe them about very gentlie, and vntill they crack 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 root cannot endure and abide it) which is called by the termes of planting, *en barrhe, en fiche*, or as it is called in Aniou, *en godeau*, and it is by pricking downe on a row the said plants, or else so as that two may stand right ouer against one that is alone, as the manner is to doe with Willowes, and afterward to couer them ouer, and to pile and beate them, as hath been said.

To cause the new plant to take root verie speedily.

Furthermore, to the end that the new plant may take roote verie speedily, it wil be good to put to the roote thereof acornes and fetches, bruised and ground together somewhat grosse, or else Beane straw, or dung that is old and made long since, or the chaffe of Wheate, which is fittest of all, if there may be found any that hath lien rotting somewhere in standing water for the space of one yeare or more, or fat earth, if in case that the ground where you plant your Vine bee but a leane earth: but if it bee a fat soile, it will be fit to put therin the drosse of the presing 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 be of a white Vine. Some doe poure Vrin thereupon, to worke the feat withall, and others the lees of Wine. It is true that some hold it for certaine, that Vrin is altogether contrarie to the Vine plant, and that it causeth the same to looke pale and white, and in succession of time to kil the stalke, whether it be Crosset, or a Marquot.

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 sow amongst them Beanes, Gourds, and Cucumbers) because that whatsoeuer is sowen amongst the Vines, doth steale away from them their nourishment, and becommeth wonderfull harmefull and iniurious: aboue all other things the Vine hateth the Colwort, as we haue alreadie said in the second Booke.

That vines must not be planted of diuers plants

Againe, Vines must not be planted of diuers plants, because all vines do not grow at one time, neither are they all of one nature: for some beare early fruits, and some late fruits. Likewise the fruits themselues doe differ one from another: for some are redde, 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 dresing, and another in another: wherefore you must not mingle diuers plants together, for there is nothing that so much spoyleth Vines, 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 manie sorts then hee 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 forward 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 posibilitie to haue others that will speed, in stead of mingling diuers plants together in the same ground, hee must haue so many inclosures, or quarters for Vines (to the end they may by them bee euerie one separated and distinguished from another) as hee will haue plants and diuersities of plants.

CHAP.

CHAP. VII.

In what ground, with what manner of inriching, and at what time of the yeare, the young vine ought chiefely to bee planted.

TO plant a new vineyard of a French vine, it behoueth the Lord of the farme (if he himselfe would see the fruit of his first labours) to haue care and consideration of the ground and of the young vineyard, which he meaneth to replenish with young plants, as wee haue said: for he may be well assured, that in a sturdie, stiffe, iuicie, and fat ground, the vine will beare much fruit, and requireth lesse to be inriched and helped, saue that it may after some two or three yeares stand in need to haue some little supplie of fresh and new earth, wherein pulse haue lately growne, or else some little reliefe at the foot, according to the time and nature of the countrie. In a grauellie 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 neats dung, and not with the dung of horse, swine, sheepe, or leistals, with all which all manner of ground whatsoeuer, is made worse, rather than amended: besides that such amends doth impaire the taste of wine, and maketh the vine sooner to grow old and out of date, because that the ouermuch trust that the workeman putteth in the heat of these, doth make him negligent, euen as it fareth with them which put vnquencht lime to the feet 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, do not vouchsafe them 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, young plants, and props, then that they would in a rainy and fit time take paines and dig 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: notwitstanding that the thing which is the principal and chiefest cause of the bringing forth of wine as well commendable for goodnesse, as abounding in store, is by bestowing as many dressings vpon the vine, as can be deuised, or any way affoorded.

To put vnquencht lime to the roots of vines.

The qualities of bad vine-dressers.

Wherefore you may vndertake the planting of the French vine in the increase of the Moone, when it is foure or fiue daies old, and that from about the beginning of December, or the middest of December, vntill the next frosts that follow, and then also according to their fiercenesse and sharpnesse, 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 crust of the frost it inwardly gathereth its strength together afresh, that afterward it may shew forth its 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 end that the raine which shall fall all Winter, may supplie the defect of other water, and that the roots may the sooner take in the earth, and then and at that time principally when nature ministreth most nourishment vnto the rootes.

My counsell is, that in planting vines there be not any holes made, but rather little pits of a fadome and a halfe in widenesse, and as much in depth, and this is 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

forke to cast vp weedes withal, the rake, a little saw, a great hedging bill, a little hedging bill, to crop and cut off the wood, and to make young branches, and an augar to graft the Vine withall.

Chap. VIII.

Of the plant of the Blacke Vine.

Concerning the naturall plant of the black Vine, it groweth euery where: the wilde doth yeeld a sharp and rough wine, such as that which groweth of ground newly broken vp: but the Vine that is intended to be for Claret wine, is planted halfe of blacke and halfe of white Wine, and thereupon standeth in neede of another manner of dressing and seat than the common Vine doth: in like sort it is harder to order well, as requiring a verie great care to be taken about it, because the wine which commeth thereof is most pleasant to the eye, 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 wine plant. And for the mingling of them afterward to make a Claret, it will in a manner suffice, if among three or foure 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 liquor than any of the other: and 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 than any other of that sort.

There be three sorts of the Morillion.

The other Morillion hath a long wood, iointed with ioints at the end of euerie 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 outside, is verie redde, and the leafe three forked after the manner of a goose foote, and like vnto the leafe of the figge-tree. This second Morillion is otherwise called wilde Pinot: it beareth but few cleere grapes, and those also small, but the wine proueth strong, yea better than 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 branch is longest iointed of all the rest, and groweth more in length and height of wood than any of the other. This third kind of Morillion is called *Le frane Merillon Iampereau*: it ripeneth before the other Vine plants, and yeeldeth good wine and as much as both the other.

There bee three sorts of the Samoyreau.

The Samoyreau is likewise found to be of three sorts: the best of which branches is short iointed, and of a verie hard wood: the other draweth verie neere vnto it: The third sort is called indented Samoyreau, otherwise white Prunelat, and that because that his wood is whiter than the other: the wine it yeeldeth is of an vnpleasant taste, and it beareth but some yeares. It hath furthermore this fault, that when the fruit should come to be gathered, it is for the most part found fallen down and shed vpon the earth.

The Negrier, called redde Prunelat, hath a redde bark: the wood is long iointed, of a thicke and grosse pitch, a leafe verie much cut, and the grape great, cleere, verie redde and last ripe. Wherefore there needeth to plant but a few of these red plants, for the colouring of the other blacke, and fastning of them: it keepeth and defendeth itselfe from the frost, because it hath a high stocke.

Neraut Bourguignon.

The Neraut, called the blacke Bourguignon, hath the same nature with the white Bourguignon, a hard and a verie blacke vvood, a fast and small pith, ioints one vpon another, an indifferent leafe and altogether round, the foot thereof being verie redde,

the

the fruit very thicke and close standing one by another, as though it were a piled or packed thing: it saueth it selfe better from the frost than any other: there needeth not so much to be planted of it, for it maketh a deep 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 bee found, because they are not any great bearers, neither yet good for any thing but making of arbours: the wood is red, as shal be said afterward in intreating of the white vine, except because it is found a little redder, & of a very vermillion colour where it is cut off

Chap. IX.

Of the plants of the white vine.

THe best young plant 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 Anjou, which hath a wood drawing neere vnto a greene, and the fruit yellow as wax. *Frumenteau.* *Muscadet.* *Pinet of Anjou*

There is no young plant that is more apt to beare and indure the frost than the Gouest, which beareth a tawnie coloured wood, and is very thicke in his stocke, hauing a round leafe, and yeelding much fruit. There is another kind of Gouest which is called sage Gouest, so called because of the tast that it maketh in the mouth: it is small ly in request, notwithstanding that it yeeld great store of wine, and be no more subiect to the frost than the other Gouest of the same sort. *Gouest.*

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 a halfe, and the fruit hauing a short taile is thicker and closer grown than the Rochelle, the leafe is very round, after the manner of Gouests: in continuance it defendeth it selfe from frosts. *The Burguignon.*

That which the Parisians by reason of his operation do call Foirard, and the Burgundians Cinquian, because it beareth but vpon the fift part of 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 goodnesse of iuice. *The Foirard.*

The Meslier, otherwise called the Saruinien, beareth much fruit; and for this cause many giue themselues to plant it aboundantly. It hatha 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 kind 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 & fruit very grosse and great: and the third is called the franke Meslier, and this beareth a better and an opener fruit than 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 grosser than any other young vine plant, and accordingly growing vp in greater hight, crauethalso a longer frame to run vpon: in like manner it yeeldeth a grosser fruit, and for a good plant, there is small need of it, as there is also of the Rochelle, which hath a whiter wood than 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 sharpnesse, and make it drie, and holding little of the liquour. *The Bourdelais.*

Chap. X.

Of the manner of dressing of the Vine, as well that which is newly planted, as that which is growne vp and old.

AFter that the plant hath beene dressed and ordered in such sort as hath alreadie been said, and that you may perceiue that it beginneth to put forth wood the first yeare, and to take earth (which is a thing that should bee knowne by mid-May) when also you find that his shoot is able to endure dressing, you must begin with it and cut it with a hedge-bill: this may bee done if it haue any shoots put forth more than 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 heed and see that it be done, as farre off from the bodie of the stocke as possibly may bee, and not betwixt two earths, least the bodie and trunke thereof might drie vp: so likewise you must see, not to let it enioie his wood, but to prune and lop it, taking away such sprigs as may grow vpon it, that so it may swell vp into a firmer stalke, as is woont to be practised in Anjou and Languedoc. It must likewise bee obserued that the cutting of it in the old of the Moone, causeth the fleshie parts 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 ground, or in vallies, as also in those vines which are giuen to bee ouer ranke of wood: afterward you must trim them, for the first dressing of a plant hath his first manner of worke and trauell. In trimming of them the second time, there must paines bee taken about the ridges, least that weeds 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 doe not wound the rootes of the vine, being assured that it alwaies more feareth and is hurt by the encounter of edge-tooles than a man could thinke: and it must not onely bee digged with a mattocke somewhat deepe, or forked pickaxe, but also the weeds which could not be wholly cast vp, must be turned in, beaten downe, and broken in their rootes: and first before this be done, there must good regard bee 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 May, if so bee you bee disposed: in which moneth, they are sometimes seene to grow and prosper, but and if you do not in this moneth make such supplie of those which are dead, then you shal stay 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 mind.

The second yeare you shall begin to giue to the young plant all such helps of dressing and trimming as are thought meet 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 young plant in the new of the Moone, and in a time of mild and gentle raine, by so much alwaies it proueth the better and the more precious.

If the third yeare when you dig and trim them, there be any perceiuerance and shew that the bud will likewise blossome and flower, you must nip it off with your naile.

To dung the young vine.

In the same yeare, the plants first planted must be dunged, and the furrowes made very cleane, and scowred of all manner of weedes, and by the same meanes there must be dung laid vnto and spread about it, which that it may bee the best and most agreeable, would bee 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

poore workeman can get, except it be marle, or fresh and blacke mould which is the best help 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 be constrained to cast and let fall his fruit before the due time.

The fourth yere likewise it must be picked and freed with the hand in very nimble and fine maner, and not to be touched with any yron instrument, to the taking away of the feeble and bad buds, the faire and beautifull being let alone, to see if they will proue as good as the young planted braunch it selfe out of which they sprung: and this must be done about May. *To prune and picke the new vine.*

Therefore to speake in generall of the tilling, ordering and dressing of the vine whether it be new 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 roots of the principall stocks, and if the plant be grown high, then this may be 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 end of Winter which is called mid-May. *To digge and turne ouer the ground after the first manner and fashion.*

The second fashion of dressing and tilling the vine, is to weed, rake, and cut the same, as hath beene said before: but before this worke come in hand, the plants must bee fitted by being cut, that so they may be able to continue in the place where they are planted, and not to be tossed and carried to and fro with strong and blustering windes. *To dig it after the second manner and fashion.*

The third sort of labour to be performeed in dressing of vines, is to propagate them: but this worke fitteth them not, for the second yeare, no nor yet for the third yere, except in some certaine places, and in such vines as at that age are growne to very stronge wood. *Propagation the third manner and fashion of vines dressing.*

The third yere besides the foresaid dressings, if the plant be strong and seated in a good ground, and that it hath put forth faire and goodly wood, it is woont to be propagated betwixt mid-Aprill, (and for surenes sake) vnto mid-May, and then the propagated branches are buried in the places where the ridges are broken & cast down, and that alike on both sides, by which meanes is made the checker whereof *Columella* speaketh.

In this same third yeare of the new plant, according to the strength of the wood which it hath put forth, 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 wood, after you haue cut it and amended the stocke, some begin to prop, vnderset, and bind it, for the bearing vp of the faire and iolly branches therof, that they may not fall and lie flat vpon the ground: 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.

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 doing hereof, they make choice 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 then lay them verie gently one after another low vnder foot, in a pit that shall haue beene made in the ridges, afterward they must bee couered with earth: some do lay the chiefe branch that is to be propagated very deepe, to the end that the yeare after that it shall haue beene dressed, and the branches handsomely laid downe in the earth without any offence or hurt done vnto them, it may abide the manuring with dung; for the chiefe and mother braunch is not woont to bee manured at any time, but rather it is to be vncouered and layed open at the foot in Ianuarie, & in the beginning of December, when the propagated *The propagate vines.*

braunch is manured, to the end it may the better take in the snow and raine water which may make it to haue a thicke foot: In Chablyes and throughout all Touuerroies and Auuerroies, they vse to propagate their vines in October, and in the beginning of December when they fall calme, in stonie and grauelly grounds. And from mid-May vnto mid-Aprill they propagate their vines in the said countries, in their sandie grounds, and such as stand on a potters clay, and not sooner than that, because the water that would stand in the pits, would rot and kill the young braunches newly planted, because of the frosts 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 be young or old, binding it ouer againe by reason of his former young 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 do in Anjou and Tourraine, because their dressing of their vines is diuers, and differing from that which wee vse. Wee haue forgotten how that at mid-May, before the raising of the plant, it must be stripped of his buds, and in doing hereof to bee heedy and warie, that the principall sprigs which shall be about the blossome, be not hurt or touched, except there be too many of them vpon one stocke.

The third dressing of the vine.

For the third dressing of the vine, which shall bee in August, it is woont to bee trimmed and tied again, after which in a gentle & calm weather, after some raine hath fallen, the earth must be stird with the pick-axe very gently and softly, and the weeds turned vnderneath: and sometimes it is weeded, if the yeare haue been rainie. 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 bee that you would haue them to prosper, and that this businesse bee 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 moneths of December and Ianuarie, the new propagated plant must bee cut, and the old one of the yeare past looked vnto, in laying bare the foot of the old, and dressing a new the propagated one, and manuring of it, if there be any need. In March and Aprill it must bee cut, and moe new plants made at the same time, also some lay bare their vines, and manure such as haue need: within a short time after, they must be laid bare againe, as also couered againe afterward: before they blossome and flowre, they must bee stripped of their buds with your hand, especially whiles the branches shall appeare so tender, as that they will scarce abide touching with ones finger, for feare of spoiling and breaking off: then shortly afterwards to prop them vp with railes and stayes, to tie them with soft and nimble bands, 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.

CHAP. XI.

Of the manner of grafting the vine.

To graft vines.

THe vine in this countrie is seldome grafted, notwithstanding wee will speak a word or two of it, hauing alreadie in the third booke handled this point more largely, where we haue spoken of all the sorts and properties of grafting. The vine then may bee grafted either vpon it selfe or on other trees. The vine grafted vpon a vine, is after two maner of waies, the one in the stocke, the other in the branch. To graft a vine in the stocke, you must make choice of a grosse & firm one, and such as is ful of moisture, not being too old, cutting it close by the ground, or which is better a foot within ground. The grafts that you

means

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 foot of the vine.The manner of grafting of them,is to insert and set the graft into the bodie of the vine about two fingers deepe. And you shall do the like,if you would graft the vine vpon the branches of the vine.

At Auxerrois and especially at Chablies, they haue another manner of grafting besides the former and they vse it much, it is in this sort: They cut off all the greene buds and sprigs from the stocke, except onely the shoot or branch which was put forth the yeare before, which they leaue of the length of some two foot.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 branch 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 manner 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 ioine, after which they binde it gently without straiting of it much,with a clouen ozier hauing the woodie 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 foot,and couer it with soft earth.Neither do they forget to pick off the buds or sprigs that may grow on the same stock that yere, to the end there may be no attraction or rising of the sap, for the putting forth and feeding of any thing else but the yong graft, which for the first yere groweth for the most part about two or three foot.Then at the end of two yeares they propagate the stocke and the graft, which by such meanes will put forth many new shootes. The like may be practised in one of the twigs putting vp at the foot of the stocke.

The vine is grafted after the same manner vpon trees, as cherry-trees, plum-trees, and others such like,and thereof *Columella* intreateth very largely in his Elme groue, whereunto I will refer you, seeing in this our countrie of France there is account or estimation made of the grafting of vines.

Chap. XII.

Of certaine pettie practises and experiments touching and concerning the vines.

You shall haue your vines to beare aboundantly, 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 brayed,and ground-fetches. *Aboundance of grapes.*

You shall perceiue before the vintage, that there will bee a great aboundance of wines,if whiles you plucke very lightly with your fingers one grape off from the bunch,there follow and issue forth some liqour after it. In like maner a plentifull harueſt of wheat,doth prognosticate a plentifull vintage of wine. Raines in the Spring time do foreshew that the wines comming after will be strong and mightie. *Abundance of wine.*

Men of old and auncient 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 venimous beasts: and not only 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 maner of preparing of it,is to cleaue three or foure 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 triacle: afterward you must *The treacle vine*

couer it and wrap it in paper, and set the clouen end into the ground: some others not contented with this course, doe poure treacle vpon the roots of the Vine.

The laxatiue 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 rootes thereof bee 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.

To plant a Vine whose wine shal procure sleepe.

Your Vine will beare a Wine apt to procure sleepe, if after the manner vsed in your treacle wine, you put Opium, or the juice of Mandrakes, in the cleft which you shall haue made in the bodie of the Vine.

Grapes without kernels.

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 verie 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 in the Spring.

To haue grapes in the spring, you must graft the branch of a blacke Vine vpon a Cherrie tree.

To make a Vine to bud early.

To cause a Vine to budde betimes, you must rubbe the eies of the branch newly cut, with water wherein hath beene steeped Sal nitrum, and within eight dayes after it will budde.

Clusters bearing both redde and white grapes.

To make your clusters to consist partly of white, and partly of black grapes, you must take two diuers branches, differing the one from the other, and cleaue them in the midst, hauing regard that the cleft run 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, and that in such sort as that their eies may be neere one vnto another, and that in such sort as that they may touch, and 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 heads 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 vanished, and afterward dip them in the Sea water ouer head and eares, or else in salt brine mixt with a little boyling wine, laying them afterward vpon barley straw. Som 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 juice of Purslaine, others keepe them in Oate chaffe.

Chap. XIII.

Of the diseases of the Vine, and the remedies for the same.

Somtimes the Vine is 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 verie choice earth, and cast the ground round about them oftentimes with the pickeaxe.

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 frosts are toward, to set the same on fire, for the smoake rising thereof will breake the force of the frost: notwithstanding, if it come to passe that the Vine bee alreadie spoiled, and the fruit destroyed, it must bee cut off verie short, that so his strength may yet

continue

continue in the remainder; for the yeare following it will beare twice as much fruit.

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 be in blossome at such time as the Sunne is in his greatest and most feruent heat. *The blasting of vines.*

To breake off such mists and fogs as are alreadie gathered in the aire, for feare they should fall vpon the vines, you must make a smoake round about the vineyard, with the dung of goats well kindled and set on fire. Against such fogs as haue already hurt the vines, you must stamp the roots or leaues of wild cucumbers, or of coloquintida, and lay them to steepe in water, and with the same to water the vines, after the mists. Some say that if there bee many bay trees planted in the vineyard, that then all the malitiousnesse of the mists wil fall vpon their boughs. *Against mist and fogs.*

Some say that the barren vine will become fruitfull, if the bodie thereof bee 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 mixt 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 poureth 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 therof, 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 its 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 rubd about the foot 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 bee cut off verie short, and if for all this it giue not ouer, it must bee barred at the rootes, and riuer grauell laid round about the stocke, together with a few 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 foot of the vine with strong vrine which hath stood a long time. *Withering grapes.*

There are some vines that do rot the fruit which they haue newly brought forth, before such time as they become fully growne and ripe: to cure this mischiefe, you must put old ashes vnto their roots, or grauell, or else barley meale mixt with seed of purcelane about the stocke and bodie. *The rotting of grapes.*

To preuent that the biting or breath of oxen and kine (which are very hurtful vnto vines) may not do them any hurt at all: you must water the foot of euery vine stock 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, lice, and such other like small vermine will not hurt the bud, or the leafe of the vine, if the hooke or hedgebill wherewith you prune and cut away the superfluous boughs of your vine be annointed ouer with the bloud of a male goat, or the fat of an asse, or of a beare, or with the oile wherein caterpillers, or brayed garlicke haue been boiled, or if you annoint and rub them with the purse and sheath of a badgers stones after that it hath been ground. *Against caterpillers and lice.*

To driue away little noisome beasts which are called locusts, from the vines, you must procure smoakes to be raised amongst the vines of the dung of oxen, or Galbanum, or of some old shooe-soles, or of harts-horn, or of womans haire, or for to plant amongst the said plants some pionie. *Against locusts.*

To preserue the vines from being annoied of the small beasts called shrewes, you must

Against the mouse-like beast called a Shrew.

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 wood of the vine, euen vnto the marrow, will not hurt the same at all, if you annoint and rub the stocke with the dung of kine or grease of asses.

That Coleworts are hurtfull to vines.

The bay-tree, hasell-tree, and coleworts doe likewise hurt vines very much if they be planted in the same ground, but especially the coleworts, which the vine hateth aboue all the rest, there being a naturall and deadly contrarietie betwixt those two plants, in so much as that coleworts are a preseruatiue from drunkennesse, as wee shall further declare by and by, wherefore the good vine-dresser shall neuer sow or plant any coleworts, baie-trees, or hasell, in his garden of vines.

Chap. XIIII.

Of the manner of gathering grapes, or of vintage.

The gathering of the fruit of vines.

To know when grapes are ripe.

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 be ripe, which is manifestly perceiued by their growing blacke, as also by hauing their kernels blacke and all bare, as being altogether seperated from the flesh or pulpe of the grape, if so be that there be any pressing of the graps. Or else, if after taking away a kernell or two out of a grape, you find that the roome whereout they were taken, doth not lessen, but abideth as large as it was, not being filled vp by the other kernells comming in place. You must gather them in faire and calme weather, not in rainie weather, nor when the grapes are full of dew, but when it is wasted and gone, and the aire is become somewhat hot rather than cold, for so the wine will be the better, and endure 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 bee stronger, and last better, than if the grapes should be gathered in the new 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-bills, and small ones verie sharpe, caske well hooped, and made very cleane by washing, cleane fats, and euery way well fitted, tubbes, great and small stands, well pitched and fitted for the purpose, and presses aired, scoured, washt, and furnished with their necessarie implements.

The time and houre of gathering grapes.

The duties of grape gatherers.

The grape-gatherers shall doe their indeauour to put asunder the leaues, greene, sowre, withered, and rotten grapes, from those that are ripe and whole, to the end that the wine may not be indammaged and made worse than it would bee. 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 blacke, not mingling the two best sorts together of any kind, as if there should bee a mingling of the well tasted grape with those which are sweet, or of the white which is strong, with another which is weake and of a sad colour. The gathered grapes must be lefe in the ground 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 dew, and the 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 equally, and in such sort, as that there may not any of the grapes of the clusters remaine whole.

Treaders of grapes.

It is true that the treaders must not goe into the fat before their feet be well washed, and their whole bodies be made very cleane, and couered with a shirt, to the end that their

their ſweat may not hurt the Wine,& they muſt likewiſe abſtaine from eating therin.

The grapes being troden,the wine or liquor muſt be let boile and worke together for the ſpace of foure and twentie houres, more or leſſe, according as it is purpoſed that the wine ſhould 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 & mightie wine, you muſt in this time of the working couer your Fat with ſom couer,that ſo the vapor thereof may not breathe out,or his force and ſtrength ſpend.

What time Wines muſt worke together after they be troden.

The droſſe and groſſe parts of the grapes that are trodden, which ſhall haue ſome iuice and liquor yet left and remaining in them,ſhall bee carried to the preſſe for to bee preſſed out,and there it ſhall abide three or foure ſtrokes.It is true that this which is thus preſſed out will make the other leſſe pleaſant, and therefore it will bee beſt to put that which floweth and runneth out of its own accord by treading,by it ſelfe; and the other which is preſſed out,by it ſelfe. But howſoeuer you beſtow them,the caske into vvhich you ſhall put them muſt not be quite filled vp: but haue ſome ſpace left emptie for the boiling vp of the new Wine,and the caſting forth of ſuch ſcumme and froth as ſhall riſe out of it with eaſe: It is true that you muſt be filling vp of it euerie day,ſo long as till it appeare that the Wine hath ridde it ſelfe from all its ſcumme and froth. And yet as then it may not be bunged vp, but rather ſome ſtone or wiſpe of Hay laied vpon the bung-hole: and after,vvhen it ſhall manifeſtly appeare that the vvine is throughly ſetled and pacified,then you may bung the caske. The caske muſt be all this while either in the open aire,or elſe in ſome barne that is vvell aired: for it is not to be layed into any Cellar vnder ground, before ſuch time as the new vvine 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 vvhich is yet hote and boiling,for be it either white or claret,it will make it fat.

Veſſels to put wine in.

After that the vvine is throughly ſetled,and ceaſeth to boile and work any more,it may be carried downe into ſome Cellar,which muſt ſtand vpon the North, paued vvith grauell or drie earth,and free and farre off from all ill ſmels,horſe-ſtables,ſinks, bathes,and mariſhie places, not hauing any thing ſhut vp and kept in it vvhich is of euill ſmell,as Cheeſe,Garlike, Onyons, Oiles, or Hides: for there is nothing more ſubiect to be infected than wine, eſpecially that which is new.

The couching of the Wine in the Cellar.
What maner of Cellar muſt be prouided.
Wine apt to be infected.

Your veſſels muſt be ſo ranked in order,as that they touch not one another,hauing ſome diſtance left betwixt them, that ſo they may the more eaſily be looked vnto all the yeare. The veſſels to auoide the venting which commonly hapneth vnto vvine, muſt haue the bunghole very well ſtopt with grauell,and not ſtirred or touched at anie time,vntill the time to drinke the vvine be come. If, vpon ſome hap, 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 find that men in times paſt (to the end they might haue a purer, neater, and more ſubtile wine,after that the vvine hath purged and caſt forth his ſcumme, ceaſing to boile) did vſe to put it into new veſſels,that is to ſay, did change it out of one veſſell into another,hauing this opinion,that vvine ſeparated from its 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,than it would haue done vpon the firſt lees; as alſo that when vvine ſtandeth long vpon the firſt lees, which are thicke and ſowre,it eaſily looſeth its naturall verdure, and getteth a ſharpe and vnpleaſant taſte,and a thicke ſubſtance. They did furthermore obſerue the time and courſe of the heauens: for they neuer drew vvine out of one veſſell into another; but vvhen the Northren vvinde did blow, vvhen the the Moone vvas either new or vnder the earth, and vvhen as Roſes had put forth their firſt flowers, and the Vine his buddes. And *Heſiodus* following this cuſtome, doth counſell men that in changing vvine out of one veſſell into another, they ſhould ſeparate the Wine vvhich is the vppermoſt in the veſſell, from that vvhich draweth ſomewhat neere vnto the lees,and both of them from that vvhich is in the middeſt of the veſſell, becauſe

that

The wine in the midst of the vessell is the best.

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 neere vnto the leese: 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.

Chap. XV.

Of the time of pearsing the vessells and tasting the wine and how to draw it without causing it to take winde.

The time to pearce wines according to those of auncient time.

Men of auncient time did attribute somuch vnto the influence of the stars, as that they did pearse their vessells 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 therefore ought not in any case to bee touched or dealt withall. Wee doe not so curiously prie into the matter, but wee pearse our vessells at all times, and as oft, as either necessitie or commoditie will persuade 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 bee, and when there is but a verie little drawne of it, you must presently fill vp the vessell againe for feare of spending of it selfe. As concerning the tasting of wine, whether it bee to sell or drinke, or if it be to finde out whether there bee any that is in daunger to bee turned, some doe giue counsell, that it is good to make the assay at such time as the North-East winde bloweth, because at such times it is more pure and neate than at others: others thinke it best when the South-wind bloweth, because this vvind stirreth and moueth the wine verie much, and sheweth it in deede to bee the same that it is: but howsoeuer it is, it is not good to taste the wine fasting; for before meate vvine hath but a dull and dead tast, neither yet after that you haue drunke of other vvine, nor after you haue got a full bellie. Furthermore the assaier of wines must not haue eaten any soure thing, salt, bitter, or any other thing which may alter his tast, but must only haue eaten something without hauing digested it.

The way to pearce wines.

To tast wine.

At what time and how wine is to be tasted.

To giue vent vnto wine.

When our house-holder is disposed to pearce his vvine, and that hee meaneth to draw it by a little and a little for his owne drinking, and leasurably without giuing vnto it any vent at all: hee must pearce it in the vpper part of the vessell with a pearcer which is for the same purpose, and put into the hole the quill of a feather which must be open on both sides, and it must bee 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 Walnut-shell, and vpon it againe some ashes or vvet 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 vvine easily, and vnto the lees without giuing of it any vent.

Chap.

Chap. XVI.

Certaine ſmall things to be obſerued concerning Wine.

WHen the caſe ſo ſtandeth, as that the Vintage proueth ſmall, and that the Lord of the farme, in reſpect of ſparing, deſireth to make a ſmall Wine, wherewith he would paſſe ouer the requiſite prouiſion of his houſe in ſtead of a better and ſtronger wine, hee ſhall make it in this ſort after the manner of a rappe Vine. In the time of Vintage he ſhall cauſe to bee taken a good quantitie of the knots of the grapes called Pinots and Sarminians, when they are verie 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 hee ſhall cauſe to be ſet downe vpon one of the ends, and afterward cauſe it to be taken downe againe, and ſet vpon a cantling, and ſo ſhall cauſe to be turned into it two pints of good wine that is olde and mightie. This being done, he ſhall cauſe there to be water boiled, wherof when it is hote, he ſhall goe forward, and proceed 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 ſometimes ſooner, ſometimes later, according as the yeare prooueth hote or cold) 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, he ſhall fill vp his veſſell againe with ſo much cold water as he drew forth of his wine, and ſo by that meanes keep his veſſell alwaies full. And by this meanes his ſaid ſmall wine will paſſe ouer the greateſt part of the yeare 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 as much good old wine. And in drinking of it he ſhall holde on (if ſo it ſeeme good vnto him) his putting in of water, as before, except that it be found too 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 vvater, as before. The colour of this ſmall Wine is verie pleaſant and faire.

Of the boyling ouer of the new wine, while 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 about the hole at which the new vvine commeth forth, a wreathe of Pennie-royall, Calamint, or Organie: or elſe you ſhall annoint the edges of the ſaid hole within with Milke, or Cheeſe made of Cowes milke: or elſe you ſhall caſt into the veſſell of Wine a morſell of Cheeſe, for it will keepe in the great heat of the new Wine.

How new wine is purged.

To cauſe new Wine to be quickly purged, you muſt put into fifteene quarts of new Wine, halfe a pint of Vineger, and within three daies it vvill be fined.

To haue new wine all the yeare long.

If you deſire to haue new Wine all the yeare, you muſt take the new Wine which diſtilleth by it ſelfe from the grapes before they be troden, and put it the ſame day in a veſſell pitched vvithin and vvithout, in ſuch ſort, as that the veſſell may be halfe full, and verie vvell ſtopt vvith plaiſter aboue: and thus the new Wine vvill continue a long time in its ſweetnes: and yet it vvill be kept thus a great vvhile longer, if you put the veſſell in a Well or Riuer, couered vvith ſome little skin, and ſo leaue it there thirtie dayes: for in not hauing boiled, it vvill continue alwaies ſweete, and vvill bee preſerued by the heate of the pitch: or elſe it vvill be good to bruiſe the grapes verie gently, vvithout much ſtraining of them, and the new Wine vvhich ſhall iſſue out of them by that meanes, vvill keepe new a long time. Otherſome do lay their veſſell filled vvith ſweet Wine in moiſt grauell: ſome doe pitch their veſſels vvithin and vvithout, and ſo lay it only out of the vvater: other ſome do couer it vvith the droſſe of the vvine preſſe, and afterward to heape vpon it moiſt grauell.

To know if there be any vvater in the Wine.

To know if there be any vvater either in new Wine or other, take a vvithered ruſh, and caſt it into the Wine, and if there be any vvater in it, it vvill draw thereof vnto it: or elſe take raw and vvilde Peares, and cutting them in the midſt, make them cleane: or, if you vvill, take Mulberries, and caſt them into the Wine; for if they ſwimme aloft

aloft it is a neate Wine, but and if they sinke there is water therein. Some do annoint a reed or a peece of wood, or paper, haie, or some other little bundle of berbes, 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 water amongst the Wine, the lime will dissolue and melt, whereas if the Wine be neat, it will bind and fasten the lime together. Some take of the Wine and poure it in a frying pan, wherein there is boiling oile, and if there be 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 if it do not descend, then there is no water in it.

The way to correcting ouermuch watrishnesse of Wine.

If the yeare fall out raine, 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 than is needfull, they must of necessitie be trodden, 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 bee put vp in vessells, and shall first begin to boile and worke in them) it must presently bee chaunged and drawne out into another vessell, for so all the watrie parts that are in it, will stay behind in the bottome: for as much as the Wine will yet stand charged, you shall put to euery fifteene quarters of Wine one pint and a halfe of salt. Others do boile the Wine vpon the fire, so long, as till the third part be consumed, and the rest they vse foure yeares after.

To recouer the new Wine which beginneth to sowre.

If it should happen that the new Wine prepared in such sort as wee 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 pint of grapes boiled, till they be full swolne, afterward straining them out into an eight part of new Wine, or else cause the said new Wine to run through riuer grauell.

To cause new wine to settle quickly.

If you would haue new Wine setled in foure and twentie houres without boiling of it, that so you might presently vse it, fill a vessell with the small chips of wood called in French *Sayette*, which the inhabitants of Champagne do call *Buchettes*: vpon these chips cast your new Wine, and within the foresaid foure and twentie houres, you shall haue a settled Wine without hauing cast any scum. The inhabitants of Champagne, especially the townes men of Troy, vse this receit not onely to cause Wine to settle quickly, but also to make rap Wine withall.

To separate water from wine.

If it come to passe that Wine haue water in it, and if we find it to be so, by the meanes lately laid downe: to seperate 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 sponge drenched in oile, to turne the mouth of the vessell so stopped downward, and so the water only will come forth: or else cause a vessel 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.

To make an odoriferous wine.

You shall make an odoriferous sweet 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 blossomes 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 cytron which is not very grosse and thicke, and pricke it full of cloues, and that in such sort as it may not touch the Wine, & after shut vp the vessell close, or else infuse and steep in Aqua vitæ the simples or such matter as you haue your Wine to smell of, and afterward straining the same Aqua vitæ, to put it into the vessell amongst the Wine.

To make red Wine of white, and contrariwise of red Wine white: Take common

salt

salt eight drams and put in in fiue pints of red wine: or else poure into red wine some whey, with the ashes of the branches of the white vine, and turne and roule it well for the space of fortie daies, then let it rest, and it will become white wine. On the contrarie, white vvine 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 pouder of honie boiled to the hardnesse of a stone, and then made into pouder, changing it from one vessell into another to mingle them together: you may do this the more easily, if you cast into the vvhite wine the dried or greene roots of all the sorts of sorrell. *To make white wine red, and red wine white.*

To make clarret wine, beate the vvhites of three egs in a dish, vntill the froth arise, and adde thereto some white salt, and as much vvine, beate them all together againe vntill such time as that they become very white, afterward fill vp the platter with vvine, and put all into the vessell of vvine and keepe it. *To make clarit wine.*

You shall make a wine that wil beare great store of water, if drying the roots of hollihockes you shaue and scrape them, casting the said shauings into the wine, which afterward you must roule and mingle together very carefully. *Wine beering great store of water.*

Wine will haue no flower, if you put in the vvine the flowers of the vine gathered and dried, or the meale of fetches, changing the vvine into another vessell, when the meale and the flowers are settled downe to the bottome. *Wine that flowreth not.*

You shall make the boiled wine called Cute, if you boile new vvine that is good, louely, and very sweet, vntill the third part thereof be consumed, and then when it is growne cold, you must put it into vessells for your vse. *Boiled wine.*

To make sweet vvine that will so continue all the yeare, you must gather your grapes whole, and let them lie spread three daies in the Sunne, and tread them the fourth about noone. The sweet vvine, that is to say, the very liquor vvhich shall run out into the fat, before the drosse substance come vnder the presse, must bee taken away, be put by its selfe, and boiled, and after it is boiled, put to nineteene quarters of it an ounce of Ireos or corne flag vvell braied, and straine this vvine vvithout the lees, vvhich being done, it vvill continue sweet, firme and vvholesome for the body. *To continue wine sweet all the yere long.*

To make vvine like vnto Greekish vvine, you must gather from the vines earely grapes very ripe, and those you shall drie in the Sunne three daies, and tread them out in the fourth, and the vvine thus made you shall put in a vessell, hauing care to cause it to purge and cast out the filth vvithin it, as also its lees, at such time as it shall boile. And the fift 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 vvine. *Greekish wine.*

To make a vveake and feeble vvine to become an excellent good wine: take a handfull of the leaues of *Tota bona*, and a handfull of fennell and smallage seed, and cast them into the vessell.

To make good houshold vvine, you must cast how much the tenth part of the wine commeth to which you haue drawne 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 bee let lie and steepe in the same a whole night: the day following, you must tread them all together with your feet, and afterward presse them out: then you must put that which shall come forth into vessells, and stop it vp when it hath boiled and purged. *Good houshold wine.*

To cause troubled wines and such as are full of lees to settle, poure into thirtie quarters of wine, halfe a pint of the lees of oyle 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 sixe or seuen egs, and stir them together very well with a sticke. *To cause troubled wine to settle.*

You may take away the force and strength of vvine, if you put into it some iuice of coleworts, vvhich you shall haue bruised before hand, and thereupon drawne out the iuice. *The taking away of the strength of the wine.*

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 coleworts 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 *Iua moſcata* about his head: or, if at his firſt draught he repeate this vearſe of *Homers, 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 hate wine.

To prouoke hatred of Wine, you muſt take the thin liquor which droppeth from the braunches after they bee cut, and put it in the drunken mans glaſſe againſt ſuch time as he ſhall drinke, but ſo as that hee 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 aliue, 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 green 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 to the drunken gallant to eate.

To make them which are drunke ſober.

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 cauſe wine that it ſhall not become ſtrong.

To be the meanes that wine ſhal not become ſtrong, take a peece of ſalt larde, and tie it to the hole by which you turne vp your wine into the veſſell, with ſo ſtrong a thread as may beare vp the lard, which lard 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 fatneſſe and ſaltneſſe, which hinder the ſeparating and refining of the ſame, which is the thing that giueth ſtrength vnto the wine.

To make old wine of new.

To cauſe new wine to become old by and by, take bitter almonds aud 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.

Wine that will keepe long.

You ſhall finde out and know whether the wine will keepe long or not, after this manner: when the wine ſhall be turned vp, you muſt, within a certaine time after, change it into another veſſell, leauing the lees behind in the firſt veſſell, which muſt be very well ſtopt on euery 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 nought. Others do put downe to the bottome of the veſſell an elder pipe, or ſome other of ſuch like wood, as may bee made hollow, through which they take the ſent of lees, and ſo are throughly certified how they ſmell, and according as they find the lees to be conditioned, ſo they iudge of the ſtate of the wine. Some take vpon them to foretell by the couers of veſſels, wherein if they find and perceiue the ſauour of wine, they by and by iudge the wine to bee good: but if in them they find 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 find to bee ſharpe in the beginning, they hope well of the goodneſſe thereof: but and if they taſt flat and ſoft, then they feare the contrarie: if when the wine is put into the veſſells, it be fat and glewie, it is a good ſigne: but if it bee void of all ſtrength, it will eaſily bee 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 new wine: or the powder of ſalt finely powdred: or pebble ſtones, and little flints, taken out of ſome brooke: or aqua vitæ: or elſe hang in the veſſel by the bung, a glaſſe violl ful of quick ſiluer, but very

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 oyle vpon it.

Chap. XVII.

A discourse of certaine wines that serue for the vse of Physick.

As we haue said in the second Booke, that the prouident huswife must sowe and plant vpon some bed in her Kitchin garden certaine medicinable hearbes: in like manner it will not be amisse, that the farmer or his wife should 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 end we may not forget any thing which may fall out to be necessarie for the better keeping of our Countrey Farme, wee would 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 hap 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 spend themselues very easily: and after that it is perceiued by the tast, that they retaine the relish of the simples infused, it will be good to take the said simples out of the vessels. *To make medicinable wines.*

To make wine of Roses: take drie Roses of the mountaines, Annise, and Honey, of euerie one alike, and a little Saffron, bind them together, and put them in the wine: this wine is very good for the weakenesse of the stomack, and for pleurisies. *Rose-wine.*

For to make wine of Wormewood: take Sea Wormewood, or for want thereof, common Wormewood, especially that which hath the small stalkes and short leaues, about eight drams; stampe them, and bind them in a cloth which is not ouer-thicke wouen, and so cast it into the vessell, afterward poure new wine in vpon it, and that after such a proportion, as that for euerie three pints of wine there may be an ounce of Wormewood, and so to hold on till the vessels be full, 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. *Wormewood-wine.*

To make wine of Horehound that is good for the cough in the Vintage time, you must gather of the crops and tender stalks of Horehound, growing especially in such places as are leane and vntilled, and afterward cause them to be dried in the Sunne, & made vp into bundles, tying them together with a rush sinking them in the vessell: in sixtie fiue quarts of new wine, you must put eight pound of Horehound to boyle therewith, after that the Horehound shall be taken out, and the wine stopt vp verie diligently. *Wine of Horehound.*

The wine of Annise and Dill, against the difficultie of vrine, the wine of Peares against the flux of the bellie: the vvine of Bayes against the ach of the belly & wringings in the same: the vvine of Asarum bacchar, against the Iaundise, Dropsie, and tertian ague: the vvine of Sage against the paines and weakenesse of the sinewes, and they are made as the vvine of Wormewood. *Wine of Annise, Dill, Peares, Bayes, Asarum bacchar, and Sage.*

For to make vvine of Thyme: you must gather the Thyme vvhen 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 Thyme.*

To make vvine of Betonie: take Betonie the leaues and seed about one pound, put them in twentie quarts of new wine: vvhen seuen moneths are past, change the vvine into a new vessell. *Betonie wine.*

For to make wine of Hysope: take the leaues of Hysope well pouned, make them fast in a very fine cloth, and cast them into twentie quarts of new vvine: this vvine is *Hysope wine.*

good against the diseases of the lungs, an old cough, and shortnes of breath.

Wine of pomegranats, quinces, mulberries, and seruices.

Wine of Pomegranates is made of Pomegranates that are scarce ripe, being throughly bruised, and put in a vessell in three quarts of thicke red Wine, to vse against the flux of the bellie: to the same end serueth the Wine made of seruices, mulberries and quinces. You may see a large discourse of Wines in the fifth Booke of *Dioscorides*.

CHAP. XVIII.

Of such faults and accidents as happen to Wine.

How wines must be ordered in cellers or roomes vnder ground.

Ine is not exempt from losse and inconueniencies any more than all other things which are contained vnder the cope of Heauen, therefore to meete with all the inconueniencies which may happen to Wine, you must carefully and often looke vnto the Wine-vessell: notwithstanding, from the time that the said vessels are couered and stopped vp, vnto the Spring Equinoctiall, it will be sufficient to fill vp and handle the Wine once euerie six and twentie daies, but after this time, twice 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 and giuing of it vent, for so long as it holdeth cold, it will remaine and continue sound and intire.

Against the eagernesse or sowrenesse of Wines.

If your Wine should begin to wax sowre, you must put in the bottome of the vessell a pot full of water well stopt, and thereuponalso, stopping the vessell, leaue therein some small hole to vent at, the third day after, you must draw out the pot, and you shall find the water therein stinking, but the wine sound and neate.

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 Southerne wind bloweth, whether it be in Sommer or Winter: as also in time of great raine, of great windes, earthquakes, or mightie thunders, and whenas vines or roses begin to flower: to keepe them from turning, you must put into them when they boile vp and worke, boyled salt, or else the seede of smallage, barley bran, and the leaues of the bay-tree, or ashes of the braunches of the vine, with fennell seede brayed.

Others do appoint these remedies: take the rootes of mugwort, and cinquefoile, make them in powder, and when the Wine shall haue boiled, put them in, and it will not turne nor change. Likewise if you lay your vessells in vaulted cellars, or if you put in them a plate of yron or flint stones, or leuen made of rie paste, or a couering vpon the vessell, you keepe your Wine from all inconueniencies that might happen vnto it by thunder and lightning.

Sweet 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 soundnesse: allome broken in peeces doth the like: as also brimsone, lime, sand and plaister.

To helpe the Wine that is turned.

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 its vessell: take ceraine whites of eggs, 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 roule it: or else, take twelue kernels of old wal-nuts, draw a thread through them, rost them vnder the ashes, and whiles they are yet hot, hang them in the vessel within the Wine, & leaue them there so long as vntill you see the Wine to haue recouered his former colour.

If

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 very ſmall powder thereof and caſt it into the veſſell. *For troubled wine.*

If it appeare and ſhew manifeſt vnto you that your Wine would marre and ſpoile, take this courſe with it: If it bee 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 pouder with two ounces of ſalt poudred very ſmall, and mingled all together: after that, put the Wine into another veſſell that is neate and cleane, and not tainted with any maner of ſmell before hand: which done, caſt into the ſame all the foreſaid compoſition, and mingle it with the Wine fiue or ſixe times a day, vntill three or foure daies be paſt: remember and marke to doe this ſame before ſuch time as the Wine bee all together marred; for when it is once throughly corrupted and marred, this compoſition will ſerue you to no end, and the labour and time is but loſt that you beſtow about it. *To helpe Wine the beginneth to wax away 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 allome, lime, 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 roots.

If that your Wine do continue to hold and ſtill retaine any ill qualitie by its hauing taken wind, you muſt make it looſe the ſame, by making two or three towres 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 medlers ripened vpon the ſtraw, and opening them in foure quarters, tie them with a ſmall threed, and thereby make them faſt vnto the bunghole 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 out, and by this meanes you ſhall likewiſe take away the ill ſmell of your Wine; or elſe take bay-berries, and boiling 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 ſoure; if you had not rather chuſe for the helping of your Wine to caſt into it ſome leeke ſeed. *To take away the fuſtie ſmell of Wine.* *To helpe the ſowreneſſe of wine.*

To keepe Wines from ſowring, you muſt place the veſſell in a cold place, very ful and well ſtopped, ſo as they may not haue any 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 quit ſoure, you muſt hang at a ſmall coard a great peece of larde well wrapped in a linnen cloth, and let it downe by the bung-hole into the midſt of the Wine: and as the Wine ſhall grow lower and lower, ſo you muſt ſtill let lower the lard, 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 bee 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 only couer the vppermoſt face of the Wine: and when the Wine is all drawn out, the oyle may eaſily be ſeperate from the lees, and gathered into a veſſel by it ſelfe. *To keepe the Wine from ſowring.* *Oyle oliue a preuenter of the the ſowreneſſe of wine.*

To take away the wateriſhneſſe and ouermuch moiſture of Wine, you muſt put into the veſſell the leaues of the pomegranete tree. *For wateriſh 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 whereinto it had fallen before, and ſtir it about with a wooden ſticke: others giue counſell to put hot bread into the Wine, or any yron ring, and then the venime will vaniſh and depart. *Againſt venime or venimous beaſts falling into Wine.*

Chap. XIX.

Of the manner of making Vineger.

Vineger is a fault of wine.

VIneger commeth through the defect of wine, as wee may vnderstand by that which is gone before: the riotousnesse and pleasure of men, hath beene 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 making of Vineger.

The most common way to make Vineger is on this sort: They vse to take good wine, and therewithall to fill the vessell to the halfe, leauing 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 Vinegar in hast, you must cast into your wine, salt, pepper, and soure leuen mingled together: and yet to make it the more hastly, you must heat 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 else the vessell must be set in the Sunne three or foure daies, and therewithall a little salt put in the vessell: or else fill a new earthen pot that is not 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 grow soure: or else put into the wine a beete root stamped, or a radish root, or medlars, ceruises or hornes, mulberries, vnripe sloes, or a shiue of barley bread new baked: or else you must take of the blossomes of the ceruise tree in the reason, 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 Vinegar or Wine, and so set it forth againe into the Sun or in the chimny end to the heate of the fire, and in a short time it will become strong and very sharpe Vineger: but if you would restore it againe to his former state of wine, then you must cast, of colewort roots into it.

Radish and beete roots make vineger.

The roots of cole-worts make Vineger to turne againe into wine.

Chap. XX.

Of some obseruations and instructions concerning Vineger.

Strong 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 powder, and with a little strong Vineger, you shall make little prettie 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 bee turned very speedily into very strong Vineger.

To make Vineger of marred wine.

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 into a vessell wherein hath bin 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 proue good and strong Vineger.

Drie Vineger.

To make drie Vineger to carrie whither a man listeth, take of wild cherries when they begin to be ripe (and yet the fruit of the cornell tree is better) of mulberies when they be red, and vnripe grapes that are very thicke, and of wild acornes before they bee ripe, stampt all together, then take of the best Vineger you can finde, and mingle them 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

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 paſt, wherof you ſhall 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.

To make roſe-vineger, take good white Vineger, and put therein red roſes, either new or dried, keeping them many 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. *Roſe Vineger.*

To make Vineger without wine, put into a veſſell ſoft and daintie peaches, and vpon them pearched barley, letting them putrifie all a whole day, then ſtraine them and vſe the liquor: or elſe take old figs and burnt barley, together with the inner parts of orenges, put all theſe into a veſſell, and ſtir them vp very well and oft, and whenas they are become putrified and reſolued, ſtraine them out and vſe the liquor. *To make vineger without wine.*

To make ſweet Vineger, take fiue pints of ſtrong Vineger, and with as much new wine reſerued vpon the treading out of the grapes, adde ſome quantitie of pitch, and and put altogether 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. *Sweet vineger.*

To make mightie ſtrong Vineger, drie the groſſe 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 old, boiled grapes, the leaues of the wild peare tree ſtamped, the roots 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. *Mightie ſtrong vineger.*

Pepper vineger is made by caſting into vineger or hanging therein whole pepper made vp in a linnen cloth, 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 vvith 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 ſweet new vvine, and foure pints and a halfe of ſtrong vineger, and if it be not ſharp enough, then twice ſo much, in a pot holding fiftie four quarts, & boile them till the fourth part bee conſumed: or if the wine bee ſweete, it muſt be boiled to the ſpending of the third part, but ſuch wine may be of his owne diſtilling out of the grapes before they be trodden and very cleere: otherwiſe, put into a veſſell thirtie pints of ſtrong vineger, wherein let ſteepe for the ſpace of twelue daies, the inward part of a white ſea onion which hath beene in the Sunne thirtie daies: after that, take the vineger and let it ſettle and abide in ſome place where you wil to vſe it afterward. *Dioſcorides* in his one and twentieth chapter of his fourth booke diſcribeth another manner of it. *Vineger of ſea onions.*

It is to obſerued and noted that all ſorts of vineger are beſt helped to keepe their tartneſſe, by putting into their veſſels at the bung hole a ſticke of red withie.

CHAP.

Chap. XXI.

Of the manner of making of Veriuice.

THe most common manner of making of Veriuice in this countrie, is to gather the greene grapes from of 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 afterward, after the manner of ripe grapes, putting the liquor or iuice thereof into vessells, and salting the same by and by, after that it hath purged out all its scum and filth, by boiling as new wine doth. In the Northren countries they do also make Veriuice of crabs mingling a little salt therewithall. Some make a drie Veriuice after this manner: they take the greenest that they can get, pressing the iuice thereout, which afterward they boile 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 thicknesse of honie.

To make your Veriuice 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 its vessell, plucke a bunch or two of blacke grapes, and cast them into the vessell at the bung-hole, euen in whole clusters, and then to salt it after that it hath beene boiled.

Chap. XXII.

Containing certaine discourses by the way of 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 bodie; so now after the manner of ordering and husbanding of the vine, and so of the fruit which commeth of such husbanding thereof, which is Wine, it shall not seeme vnreasonable, if summarily, wee discourse and stand vpon the necessitie, nature, faculties, and differences of Wine, whereof we make so great account ordinarily in our drinking thereof.

The necessitie of drinke.

And to the end that we may now come to the matter: Seeing not only the substance of mans bodie, but of all other liuing creatures is subiect, (through vitall heate continually working in them) vnto a perpetuall wast, and expending of it selfe: nature being prouident ouer her owne workes, hath giuen vnto and put in all sorts of liuing creatures, an incredible desire of eating and drinking, to the end that this waste and losse of substance might bee repaired and restored by the well bounded increase comming of eating and drinking; for otherwise, naturall heate destitute of such her food and nourishment, would quickly be choked and quenched. Now the substance of euery liuing bodie 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 solide substance, if so be that such solide nourishment could easily bee digested and distributed, throughout the whole habite and vniuersall masse of the bodie. But seeing that such is the solidnesse, hardnesse, and grosenesse therof, as that it cannot, it was needfull that it should be accompanied with some floting and fluide liquor, which might stand in steed 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 than the solide nourishment to let and hinder the

the drying vp of the ſolide parts, and to temper all ſuch heat, as otherwiſe, vpon euerie light motion, might at euerie moment offend and hurt them. This loſſe and continuall expence of this threefold ſubſtance (which in the end doth firſt bring old age, and afterward death) doth grow through that iarre and diſagreement which is in the foure elements, vvhereupon the whole bodie is compounded and framed: vvhich elements alſo, notwithſtanding that they may ſeeme vnited and ioyned together in a certaine kind of harmonie, conſent, amitie, and inuiolable bond, yet by reaſon of ſecret rancour and mutuall diſagreement happening through their contrarie qualities, they doe ſo warre one vpon another, as that by little and little they do procure the ruine, diſſolution, and vtter ouerthrow of that bodie which before they had conſented to frame and compoſe. Phyſitions ouer and beſides this, do acknowledge another cauſe of this expence of nature, and bringing in of old age, and laſtly death, vvhich is fore-ſlowed and kept off by eating and drinking; and that is naturall heat, vvhich feedeth vpon the radicall moiſture, ſeated in the ſubſtance of the ſolide parts: vvhich 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 forth to a longer terme. Wherefore, Nature being carefull of the preſeruation and long continuance of the bodies of liuing creatures, vvhich otherwiſe, for the occaſions aboue named, vvould grow old and periſh in a few houres, taketh not anie other courſe for the ſame but by eating and drinking, vvhich are the two meanes to ſuſtaine and preſerue (ſo much as is poſſible) the liues of all liuing things. And as for eating, let vs leaue off to haue anie thing to doe with it, as hauing ſpoken thereof in the former booke, and let vs come to the ſecond, vvhich is drinking.

The common drinke of all liuing creatures is water.

OLd and ancient Hiſtories doe ſufficiently teſtifie, that water was the firſt drinke which men vſed generally throughout the world, and wherewith they contented themſelues a long time, to vſe it onely for the quenching of their thirſt: but afterward, vvhen voluptuouſneſſe ſeized vpon mens appetite, they inuented and ſet before them diuers ſorts of drinkes. Wherefore hauing reiected water as a taſtleſſe and vnſauourie thing, they haue in place thereof (in all ſuch Coaſts and Countries as where the heat of the Sunne might bring forth and lead along the grape vnto his full ripeneſſe) choſen Wine for the moſt excellent and delightſome drinke of all others: as in other cold Countries, and ſuch whereas the Vine could not grow, they haue either ſtill continued their drinking of vvater, or fetched and procured vvine from other places, or elſe haue prepared ſome other kind of drinke comming neere in ſome meaſure vnto vvine, vvhich by the delicateneſſe thereof might reioyce the heart, and gratifie the taſt. Whereupon, ſome in ſtead of vvater 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 vvater, or vvater ſweetened vvith ſugar: and others, of other drinkes preſſed and ſtrained out from fruits, or the decoctions of rootes. All France, Italie, Sicilie, Spaine, and all other Countries which are farre off from the North, doe content themſelues with vvine, the Nation of the Turkes excepted: vvho, being incenſed either by the ſuperſtition of *Mahumet*, or ſtirred vp thereunto by the ancient cuſtome of Turks, do vtterly abhorre vvine, and vſe in ſtead thereof honied water. England, Scotland, Dalmatia, Polonia, Sarmatia, and other Northren Countries doe vſe partly vvine, 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 vvine and drunkennes: vvitneſſe hereof is not onely Germanie, but alſo Frizeland, Dalmatia, and Flanders, the inhabitants of which countries doe not onely ſtriue who ſhall drinke moſt, and extoll drunkenneſſe vnto the skies, but alſo doe ſcoffe at ſobrietie, and ſo highly diſdaine ſuch people

people as striue to liue soberly and temperately, as that they think them the most vnworthie of their alliance and companie. And yet (notwithstanding that so many sorts of drinks be growne in request in stead of water in many countries) wine seemeth to me to beare the bell, as being the most pleasant, delightsome, and excellent drink that can be found or thought vpon.

What is meant by wines.

THe iuice then of the grape, which either runneth from the grape being full ripe, or is pressed out with feet, or the presse, before it be boiled, is called new or sweet wine, but after that it hath boiled, and thereby cast forth all his scumme and dregges, 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 putrifaction, but rather an effect of naturall heat engendred 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 heat thereof cannot (without great strife, enforcement, and contending) concoct and ouercome: it is necessarie, that in this contention it should worke out a heat, boyling, and verie great perturbation, by reason of the struglings of the two contrarie heats: 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 heat which is kindled and raised in the crude and raw parts of the new wine, which encountring the naturall heat no otherwise than is done in the crises of sharpe sicknesses, at such time as naturall heat doth concoct the crude and raw matter of the disease, and attempteth to make separation of the noysome and annoying matter, many disturbances, shakings, heats, and other grieuous symptomes doe fiercely assaile the partie, vntill such time as naturall heat (hauing ouercome) proceed to the separating of the good and naturall humors 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 heat is ouercome by the heat of nature, without any worke of putrifaction: 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 concocted and digested, as that that which before was crude, flatulent, and hard to be digested, is become gentle, tractable, fauourable, and verie 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 thicknesse of honey. 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 inuenters and first finders out of wine.

SVch 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 verie 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.

Athenaeus

Atheneus saith, That the Vine was first found neere vnto the Mount Etna, and that a dogge passing that way, plucked vp a little branch of a Vine tree out of the earth, and that *Orestesus*, sonne of *Deucalion*, which raigned in that Countrey, caused the same branch to be planted againe, vvhereout there sprang manie shoots of Vines, vvhich he called *Oenus*, of the name of the dogge which had plucke the same branch out of the ground: vvhereupon also the auncient Greekes called Vines *Oenas*. The Latines say, That the Vine is called *Vitis, quasi vita*, because that vvine doth quickly restore the vitall spirits being wasted and spent, and doth comfort, repaire, encrease, and strengthen the naturall heat that is weakened, vvhich is the principall instrument of life, insomuch, as that by the vse of vvine it is made more freely disposed than it was before to performe all manner of actions requisite for the life of man. Old Writers are not of one mind concerning the first originall and inuention of the Vine, for euerie 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, hearbes, 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 wild Vine (called of vs *Labrusca*) doth now bring forth, but that the first fathers did not so quickly know the vse and profit of the Vine. For in America, Florida, and the new-found Countries, there are great store of Vines growing plentifully, and in great aboundance, without any art 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* οἴησις, that is to say, iudgement, consideratenesse, and aduisednesse, because it furnisheth the intellectuall part with iudgement and aduise, because by his quicknesse it restoreth the spirits, whereby it strengtheneth the mind as well as the bodie, as *Mnestheus* hath verie well reported of it. Some likewise say, That the Greekes call οἶνος *quasi* ὄνησις, 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, vvhen it is taken out of measure. The cause likewise why the old Writers called it *Temetum*, was because the immoderate vse thereof holdeth captiue and corrupteth the mind, 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 newly 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 old: it is likewise of drinesse proportionable to his heat. It is true, that according to the regions, grounds, inclination, and disposition of the yeare, 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 Countrey of Narbone in France, Gascoigne, and other hot Countries doe bring forth, proue hot and drie in the end of the second, yea in the beginning of the third degree, especially when the constitution of the yeare falleth 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 vvhich draw toward the Westerne or Northerne quarter, doe scarcely fall out to proue hot in the beginning of the second degree, no not in a hot and drie yeare, and though they be growne to a middle age, as not hauing passed the age of the first yeare. For when the yeares fall out cold and moist, all these kinds of wines for the most part growing in these Countries, become greene and raw, and for the same cause called greene wines, and those so weake, that hardly may they be iudged to be hot in

in the first degree, and the yeare 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 old writers haue deliuered concerning the temperatures and qualities of old Wines, cannot bee proued true of such Wines as grow in these countries, wherein the greatest part of French Wines within three or sixe moneths, or at the furthest by the end of the yere, grow to the full top and perfection of their goodnesse: whereas on the contrarie, such as grow in hot countries, and become themselues more hot, will not bee at the best, before the fifth, sixth, yea before the tenth yeare; which if it bee so, you must thinke that the sinewes and other senses of the bodie, doe receiue most harme by old Wines which grow in hot and drie countries: and that they are the lesse offended and hurt of the old Wines which grow in this our French soile which is more cold. In this countrie new Wine being sufficiently boyled vp and fined, as it is more pleasant to the tast, so it is more hot, cleane contrarie to that which groweth in hot countries. *Dioscorides* writeth that old vvine, for as much as it is hotter, doth hurt them very much which feele some weakenesse in some of their inward parts: but wee cannot say the like of our vvine vvhen it is old, but rather of our vvine when it is new, for the same reasons. Wherefore it followeth, that the opinion of *Dioscorides* and diuers other Physitians, touching the heat and temperature of old wines, is to bee vnderstood of vvines that grow in countries that are more hot, and not of such vvines as (if they bee daintie and delicate vvines) vvill attaine the height of their goodnesse, and summe of their perfection in sixe or eight moneths, or at the furthest by the end of the yeare, in such sort, as that the same being ended, they waxe sower: yea, if they be right noble vvines, they bee well forward vpon and toward their perfection in the beginning of the second yeare, or somewhat after. The force and naturall heate of the dilicatest French vvines is gone after the first yeare is once past: but in a noble vvine it fadeth and falleth away by little and little, not before the second yeare be past. The vvines of Gascoigne and Aniou, growing in a hot and drie season, draw very neere vnto the nature and temperature of the vvines, whereof old vvriters haue spoken: because the greatest part of them may be kept vnto the the third yeare. The vvines of Orleance are at the best the second yeare, and it stayeth with them to the end, but when the second yeare endeth, they begin to loose their goodnesse.

Olde wines are hoter than the new.

New wine hoter than old in France.

Now if the case stand thus in hot countries, it is better to abstaine from old vvines, than from new which are altogether fined: for their old vvines do heate out of measure; but the new vvines stir not vp any heate that may molest and trouble, and yet they also be very hurtfull, because they digest very hardly, and beget many obstructions. Wherefore in countries that are more hot, new vvines may be drunke without any preiudice to the health, being of a thin substance and wel fined, because they haue but a weake heat. 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 old vvines, in as much as after some long time they loose their heat, and thereby heat the lesse, are not so hurtful 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 raw, windie, and of hard digestion, if therewithall it do not ouerturne the stomach, and prouoke flux of the bellie) doth stay a long time in the stomach and places thereabout, swelling and blowing vp the same, and therein begetting rebellious obstructions hardly taken away and remoued, as also it causeth troublesome dreames, and cold and durable diseases.

New wines or the iuice of grapes which haue lately 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 far 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 further-

Yea furthermore, they oftentimes hang and lie long in the bodie, and become very subiect to soure in the stomach, if there bee but some small quantitie thereof taken more than is conuenient.

Wine which is well and sufficiently digested and wrought, and thereby purified and 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 its vertues and properties all quite contrarie, vnto the vices and inconueniencies 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 fulnesse 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 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 stomach more than all the rest of the parts of the bodie, as being first receiued and intertained into the same, and hereupon in becommeth a great friend to digestion, prouoketh appetite, succoureth and relieueth the heart by speciall propertie, thereby speedily repairing such naturall and vitall spirites, as haue beene wasted by sodaine euacuation, wastings, or other occasions: it nourisheth also, preseueth, sustaineth and strengthneth naturall heate, whereas it beginneth to faile. Heereby it worketh vpon the vnderstanding, awaking, and raising it vp, cheereth, and encourageth the faint and languishing, and recreateth and reioiceth the spirites, in regard 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 wines 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 dueties. Lastly, wine maketh the colour more liuely and cherri-like, and is found a most excellent, speedie, and singular remedie against all sownings and faintings which happen through excessiue euacuation, or crudities molesting and troubling the vpper mouth of the stomach. And in as much as it attenuateth, concocteth, and discussleth crud and cold humours, and flatuosities abounding in flegmaticke and melancholicke persons, it becommeth a most excellent drinke, not onely for flegmaticke and melancholicke ones, but also for all such as are of a cold and moist disposition of bodie, but especially for old folkes, and principally in Sommer, in such countries as are giuen to be cold.

The benefit of wine.

The annoiances, hurts, and discommodities of wine.

And yet notwithstanding that wine surpasse in excellencie and goodnesse all other sorts of drinkes, it worketh many annoiances by reason of its quantitie, qualitie, or vaporousnesse. The most notorious and common annoiance that the vaporousnesse of the wine doth cause, is drunkennesse, which as *Athenæus* recordeth, maketh men sots and senselesse, and yet so talkatiue and pratling, as that they cannot hold their peace, neither yet conceale any thing they know: wherupon the prouerbe groweth, that wine goeth barefoot, because the drunkard lieth open and naked on euery side, and couereth or hideth things no more than the steele-glasse, for which cause the Poet *Æschilus* hath written, that the pictures of mens bodies are commonly to be seene in brasse: but the shape and fashion of the mind in wine; And *Plato* affirmeth, that the manners and disposition of euerie man is knowne by wine. The Poet *Theognis* doth likewise aduertise vs, that as gold is proued in the fire, so the vnderstanding part of man by wine, in these verses:

The hurts and inconueniencies that wine worketh.
Drunkennesse.
Wine goeth bare-foot.

Quale sit admotis explorant ignibus aurum:
Mens hominis vinum, sana 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 heauinesse in their heads, and to fall into deepe and sound sleepe. Auncient writers, as saieth *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 blockishnesse, feeling such a drowsie heauinesse in the head, forgetting to remember what they should do, 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 drunkards in all points alike, for some it maketh lumpish and drowsie, as such (as I haue said before) as haue their braines repleate with flegme: other merie and iocund, and those which are sanguine: many to be giuen to contentions, and much prattle, as such as are subiect to yellow choler: othersome be giuen to picke quarrells, doe 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 bloud and spirite, doe feele a heate throughout their whole bodie, but chiefely in their head, except they be such as wax cold and benummed through their folly, as in whom the naturall heat is not quickned and kindled, but rather smoothered and choaked by reason of the excessiue quantitie of wine which they haue taken: no otherwise than 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 heate is oftentimes strangled vpon the sudden, by the excessiue and immoderate drinking of wine. But and if it be yet so drunke immoderately, as that it cannot extinguish and suddenly destroy the naturall heate, at the least by snubbing and checking of naturall heate, hurting and infeebling his actions, as also in diminishing the strength of the bodie by surcharging of it with heauie loades of superfluities: accidently 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 its owne nature it might otherwise maruellously prouoke. And hereupon it is that *Aristotle* sayeth, That the seed of drunkards becommeth dead and fruitlesse, and their children blocke-headed groutnolles. Wherefore euen as wine (when as by its feruent vapours it assaileth the head, and filleth the braine) prouoketh drunkennesse and foolishnesse: so when the said vapours are thickned somewhat and congealed into a serous and waterish substance, by the coldnesse of the head, if they bee 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 partie come againe to the enioying of his former estate, and seeme to bee well) if it remaine long time in the braine, and being fast setled therein, grow further and gather more vnto it, doth in the end stirre vp many diseases of the head, as hardnesse of hearing, deafenesse, noyses in the eares, blindnesse, the falling sicknesse, conuulsions, palsies, apoplexies, and many other such like, of all which, it is not otherwise to be accounted the cause and originall, than by way of accident, as also of that sudden strangling disease, which it causeth not but very 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 breed many distillations, and catarrhes, hoarsnes, rheumes, coughs, gouts, difficulty of breathing, and many other symptomes, very hard to be cured: yea and by its 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 gout, should at the same time that this paine is vpon him, tast but some few drops thereof washing his mouth onely therewithall, he shall presently feele

Wine fitteth the dispositions of the drinkers.

That drunkards their seed and nature is not apt for generation.

feele his paine increased, and falling into a far greater rage. Yea which is more, such excrement ingendred in the head, getteth there such a kind of enimitie and aduerse qualitie, and that so at iarre and malitiously bent against the ioints, as that it rusheth it selfe in its distillations, rather vpon the ioints than vpon any other parts, and so causeth gouts and ioint aches. Finally, this excrement being of a subtile and sharp substance, falleth and penetrateh easily into the lungs, as also corrupteth and exulcerateth them. There are also other most daungerous annoytnces which wine of it selfe and by its 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 woot to ouer heat and drie their noble parts, to ingender great of cholericke humours, which standing without remooue and motion, must needs breed many maladies and diseases.

From hence spring out agues both continuall and intermittent, inflamations of the inward parts, as the liuer, spleene, and lungs, the plurisie, passion of the reines, and such other inflamations of many other parts, which haue not as yet any proper name assigned them. Hence likewise grow all itches, tetters, wild fires, flying fires, cankers, and all sorts of vlcers. Those therefore that are prone and apt to fall into such inconueniencies 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 old 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 sick, rather than vnder a conceited hope of some doubtfull health, to expose and lay them open to manifest daunger by the vse thereof. Notwithstanding we dayly find, that the vse of wine is very commodious and profitable for cold and moist complexions being such as are troubled with cold and moist diseases. Wherefore the wise and well aduised Physitian may tollerate the vse thereof, when he knoweth that there is need for the concoction of some cold 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.

THe learned of auncient 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 vndelayed wine, as also surfetting, and that in their feasts and bankets. For *Hesiodus* commaundeth 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. *Athenaeus* writeth, that the Grecians vsed to drinke two glasses 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 immitated by the decrees and appointment of Phisitians. And as for the quantitie of wine to be drunken, the poet *Ebulus* bringeth in *Dionysius* speaking to that end in this sort.

That vndelaied wine is not wholesome for such as be in health.

What quantitie of water is to be put to wine.

Tres tantum pateras, quibus est mens sana propino:
Quarum quæ fuerit prima, salubris erit.
Proxima delicias sallura est, tertia somnum:
Luxus erit positum transilisse modum.

This decree and ordinance hath bin approued by them which haue forbidden by their laws, that the Romane priests should not drinke any more than three glasses at a meale.

For what ages wine is most fit.

And as concerning age, vvine is hurtfull vnto young children, as also vnto them which are growne vp to greater yeares, because that vvine by his very much drinesse destroyeth and ouerthroweth their hot and moist constitution, vvhich *Hippocrates* commandeth to be maintained by things that are moist. And that it is so, we see, that such children as vse to drinke vvine, howsoeuer it be dilayed (their liuer being dried and ouer-heated by the contiuall vse of the said vvine) doe fall, for the most part, into a long and lasting flux of the belly, and in the end into an irrecouerable hectick feuer, vvhich 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 tast of vvine, as also any others, who like children are of a hot and moist temperature and constitution, because that by his vaporousnesse it filleth the braine, and doth infinite hurt and mischiefe. *Plato* in his precepts of ordering a Commonwealth, commaundeth children to be kept from vvine till they be sifteene yeares old, and his reason is, for that fire must not be added vnto fire: from sifteene 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 vvine is altogether enemie vnto children, so it maketh recompence in the good it doth vnto old persons. *Plinie* saith, That vvine hindereth those which prepare themselues to doe, speake, or enterprise any good thing: and this was the cause why *Plato* forbad the vse of vvine to sage and learned men, except it were in their feasts or sacrifices. The Romans for sundry reasons did likewise forbid the vse of vvine to women and seruants. We reade in histories, That the vertues of many famous and great personages, haue beene obscured and eclipsed by the vse of vvine. Of this, wee haue *Lysander*, Captaine of the Lacedemonians, for a vvitnesse, who was a prudent, wise, and good disposer of all his matters and affaires, saue that of the vse of vvine; *Antiochus* the great, *Demetrius* lying for a pledge and hostage at Rome, *Alexander* of Macedonie, *Dionysius* the younger, the tyrant, *Zenocrates* the Philosopher, *Anacreon* and *Alceus* 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 *Atheneus* recordeth) thought it to be an offence worthie death for to drinke vvine. Of the same opinion at this day are the Sarazins, moued thereto as well by *Mahomets* law, as also by the imitating of the ancient custome of the Gentils and Arabians. Let vs then conclude, that vvine, 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 heat and drinesse it is most pernicious vnto hot and drie natures, as also vnto hot and moist ones, if it be not well dilayed, 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 yeare, and constitution of the ayre: because that in old folke, and all such as in vvhom crude flegme and melancholike iuice doth abound, his heat and drinesse 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 noysome qualities by the mingling of water, as that it may be taken with the least hurt that possibly may be. When as therefore the vvine is mixt with the water, the parts both of the one and the other are broken and parted (as it were) into small inuisible portions, vvhereupon 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 parts the diuision is made, by so much the more apt and easie they proue to be mingled and made one. Whosoeuer therefore shall mingle vvine vvith vvater, or vvater vvith vvine, must first stirre them a long time, and then before he drink them, let them settle and rest a while: because for certainetie, the contrarie qualities of the

That vvine is hurtfull vnto hot and drie natures, and good vnto moist ones.

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 find that euen wine delayed, ceaseth not to offend and do harm, if it be taken in ouer great quantitie, or at vnseasonable times, especially of such as are of a hot and drie disposition, as we shall declare hereafter. But this is enough which hath beene said of wine in generall: now let vs examine all the particular differences of the same.

The differences of Wine.

IN wine wee are to consider the colour, relish, smell, facultie, 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 deep red, and others of a pleasanter red, blacke, or darke shadowed. *The differences of Wine.*

White wine generally is of a thinner substance than the red, it is easily concocted and digested, it pierseth speedily through the whole bodie, worketh more vpon the veines, but nourisheth lesse. That sort of white Wine which is thinne, hot and full of Wine, is concocted and distributed more speedily than any of the rest, purging the bloud by vrine: but it offendeth the head most of all, especially French white Wine. Water by reason of its coldnesses, and red or darke shadowed Wine by reason of its thicknesse doe slowly passe away by vrine. The contrarie is found in white Wine, especially such as is of a thin 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 is woont to be more slow of concoction than all the rest, as also to bee distributed throughout the whole bodie, or carried away by vrine, because it is of a grosser substance than 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 tast, such as we haue great store of here in our countrie, is likewise of an easie digestion, and quickly passing and distributed through the body, and yet notwithstanding hurteth not the head, neither increaseth any great store of heate, in so much as that this kind of white Wine is more wholesome and safe both for the sound and sicke, than the white Wine which is thinne and full of Wine in taste, especially in persons that are fat and full bodied, because it nourisheth lesse than all the rest. *Galen* is of iudgement, that red and thick Wines are turned without any great paine into bloud, and so next vnto them the blacke or deepe red and grosse wines, if so be they be accompainied with some small smatch of sweetnesse: and next vnto these which are of a light red, those which are of a deepe red, thicke substance, and astringent facultie, nor for that they can be digested more easily, or distributed more speedily, than white or yellow Wines, but because that being once concocted in the stomach, and sent vnto the liuer, they are easily changed and turned into bloud, notwithstanding they seeme not the least remoued and differing from the nature of the same: for white and yellow Wines of all other are woont to be the speediliest concocted in the stomach, and to bee conueied vnto the liuer: but they yeeld lesse store of bloud then those which are thick and red, and so doe fat lesse. Wherefore yellow Wine, or the redlike Wine being of a thinne and pearsing substance, by how much it approcheth the neerer vnto the faculties of thinne white Wine, by so much it begetteth the thinner and more fluent bloud, and therewithall hot if it be hot, or temperate if it bee 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 cold bloud, if it be yet somewhat greene and vnripe. But the deepe red Wine which is harsh and rough, whereas for its thicknesse it is profitable to comfort the loose and wearish *Red Wine or darke coloured.*

stomach, 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 melancholike blood, & so withal begetteth many 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 said, that deepe red wines were thicke, and of hard concoction and digestion: for all thicke wines, whether they be of a deepe or light red, do nourish (to speake the trueth) aboundantly, and fat the bodie, but they put the stomach to more paine in concocting of them, than those which are somewhat cleere 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 windienesse in the bellie and bowels. Wherefore yellow and white wines, that are of a subtile substance and very ripe, are to bee better accounted of, and iesteemed as more wholesome for all such as haue need, or desire to bee heated, as old folkes, flegmaticke, and melancholike persons that be cold of nature, as also for them that lead their liues in idlenesse, in cold countries and cold seasons, as in Winter, heapinging vp great store of superfluities and raw humours in the veines: for they are likewise more profitable for the furtherance of concoction to bee made in the stomach, liuer, and veines, than those which are waterish and sweete; but very many times they offend and hurt the head and sinewes, and make a full braine: for this cause they are enemies and contrarie to such as are hot by nature, or haue a moist braine, or their sinewes and ioints weake and subiect to distillations: for vnto such bodies, the wines that are a little red and somewhat astringent, are farre more meete and conuenient, because they bee 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 ὑδαρῆ 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 thin 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 bodie very little, and are harder to be digested, than those which will beare but a little water, but they coole and moisten more than the rest, and where as they nourish but a little, they are said on the other side 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 stomach, bowels, matrix, and spleene very much: and which is more, are professed enemies to all such as are cold and moist by nature, and especially vnto old folkes. Contrariwise, they are somewhat profitable for hot and drie natures, and if naturall heat 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 subtile substance. The like iudgement is to bee had of diseases, for as they are tolerated with all securitie in hot natures, so in like manner they prolong and increase cold diseases. And thus sufficiently as it seemeth vnto me, concerning the nature, qualitie, and vse of wine, gathered from the colour thereof.

As concerning the relish: some wines are sweet: some sharp: some bitter: some rough and harsh: some sower and tart, and both of them astringent: others of a mixt nature, betwixt sweet and rough: others greene or greenish, and these are very common and vsuall in the grounds about and belonging to Paris.

Sweet wines. In generall, all sweete wines, whether they be white or red, do nourish more than other, heat indifferently, prouoke thirst, swell and stop through the much vse thereof the prnicipall parts, but the liuer and the spleene more than all the rest, especially if they be grosse and thicke, for looke how much the thicker they bee, so much the

the more vnwholesome they are. Sweet wine (saieth *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 bellie, but it is not good for such as abound with colericke 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 drinesse.

Sweet white wine is of a thinner substance, than sweet red wine. It helpeth spitting more than any other, so that it bee not too grosse and thicke, for it concoecteth raw flegme in the brest, it smootheth and maketh plaine the roughnesse 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 here while said, 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 choleticke matter, as all other things are which are sweete. Notwithstanding, it procureth drunkennesse lesse than any other, in as much as it offendeth the head but a little. *Dioscorides* hath spoken very rightly thereof, saying, that such sweet wine is of thicke substance, that it passeth not so easily through the bodie, and that therefore it nourisheth more than that which is of a thinne consistence and substance. Hee saieth further, that it swelleth vp the stomach, and like the liquor of grapes before it hath wrought, it looseth and troubleth the bellie and inward parts. And this must bee vnderstood of sweet 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 sweete white wines are sent hither in great aboundance from the countrie of Aniou, and they hold their sweetnesse two or three yeares. *Sweet white wine.*

Such sweet white wines are not so hurtfull as those which are not ripe, or which are thicke: they prouoke vrine sufficiently, loosen the bellie, and moisten. Wherefore you must diligently and wisely discerne and distinguish the sweet wine which is crud and vnconcted, from that which is already ripe, and fit for to be vsed.

All sweet white wines do nourish aboundantly, but yet more or lesse, according to the proportion of their thicknesse and grosnesse, and for this cause such as haue need of restoratiues must vse sweet wines, especially if their reines liuer, and spleene stand sound and free from all infermitie: for when the principall parts be obstructed, and the veines full of grosse bloud, then wine that is of subtile substance is most needfull and profitable. When the veins are replete with cold 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 old is not good, but rather a claret or white wine that is very watrie, yea, and somewhat greenish, if the stomach wil beare it, and the soile of the countrie permit it.

Galen affirmeth that no white wine heateth greatly, and that such as heateth much, cannot bee sweete. And yet notwithstanding, there are brought vnto vs out of hot countries many white wines that are very hot. And we haue likewise sweet vvines partly growing in our owne countrie of France, as at Longiumeau, and Tonnerrois, called vvhite beaten vvine: partly brought from the countrie of Anjou, excellent good, and very hot, which in taste resemble the sauour and relish of a Hippocras made of vvhite vvine, and will hold and continue sound and perfect good, three, foure, yea sixe yeares. In Greece their vvhite vvines are not found to bee very pleasant and sweet, as in this our countrie there are not to be found any red wines very pleasant, except vpon their new pressing out. Notwithstanding the countrie of Bordelois doth furnish vs with sufficient quantitie of red wines, that are very sweet, but they are all of them of a thicke substance, and their iuice or liquor breedeth very many obstructions. *Galens iudgement of white wine.*

Harsh and course vvines do procure vrine more than the sweet, but lesse than such as are of a middle kind betwixt both, and yet againe, those which are tart and sower, doe also prouoke vrine more weakely than those vvhich are of a middle temper. *Rough and harsh wines.*

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The rough and course wine doth corroborate the stomacke and principall parts by his astringent facultie, prouided that the stomack be furnished with sufficient strength and force of heat, for otherwise in a cold and weake stomack it proueth, for the most part, to be hardly concocted and digested. Of all other vvines, it least hurteth the head, but therewithall it proueth to be the slowest in distributing it selfe abroad into the veines and substance of the bodie: for which reasons, it falleth out to be vnfit to be vsed in swownings, sodaine faintings, and all other feeblenesse, loosenesse, and languishing of the strength, as also where there are any notorious obstructions in the principall parts. But which more is, it bindeth the bellie, or else looseth it not sufficiently.

Greene wines. We haue spoken of greenish white wines, whereunto the reddish greene wine hath like qualities, especially if it be 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 than wine, nourisheth the bodie but a little, is of hard digestion, and so it moueth windinesse and wringings in the belly, because it is of a cold temperature. Hence it commeth, that old folkes, cold 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 swarth colours. Notwithstanding it passeth away speedily by vrine, because it is thinne, and annoyeth not the head: and for this reason it is very profitable for all hot and moist natures, as for young folkes, vvhich haue a boyling and burning bloud in them, if their stomacke be in good state, especially in Summer time: for which respect, being dilayed with a sufficient quantitie of vvater, it will serue very fitly (in like manner as the vvine 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 vvines, as together with their greenenesse are astringent or sowre, are without comparison more hurtfull than any other euery way, 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 raw and crude parts thereof be ouercome by their owne proper and naturall heat. But it shall not seeme to exceed the bounds of reason, if wee discourse somewhat more freely of the verdure of our vvines, to the end wee may be able to discerne and find out that which is in vvines by way of purchase, from that which is naturally in them. *Galen* writeth, That the astringent qualitie in vvines 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 vvines growing naturally: but in this our Countrie of France there are many greenish vvines pressed out from grapes that are not yet ripe: but especially in cold and moist yeares, some which are verie thinne and waterie: others more thicke and grosse, and by that meanes either astringent, or else rough and harsh: strong and mightie vvines, if they be neuer so little tainted with greenenesse, presently they become sowre, and altogether vnmeet to be drunke. But such as being pressed out from grapes, scarce halfe ripe, differ not much from the greenenesse or sharpenesse of common veriuice, if they be not concocted by little and little through a strong and forcible heat contained in their crude and raw matter, and so in the end become ripe, their greenenesse being by little and little diminished: and such are not passing of a yeares continuance, seruing rather for the rude and homely people, than for daintie and delicate personages. For certaine, all greenenesse in vvine is a fault in those vvines vvherein it is: but yet that is the worst of all the rest which happeneth vnto vvines 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, vvithout comparison, is that which happeneth in our French wines, which by the weakenesse of the heat 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

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and vnripe grapes, from whence they are preſſed. For ſuch greeneneſſe as happeneth vnto vvines once good and commendable, is hurtfull vnto all men, and cannot be redreſſed, thereby making ſuch vvines vnfit to be employed about any other vſe than either for medicine or ſawces: vvhereas that which is borne and ingrafted into ſuch greene vvines, if it be not ſuppreſſed and digeſted by naturall heat, becommeth onely hurtfull to cold and moiſt conſtitutions and old folkes, but not vnto ſtrong, luſtie, and hot natures, neither vnto them which are accuſtomed to trauaile, and to auoid idleneſſe. You ſhall find many harſh, rough, and ſowre vvines, vvhich are alſo greene: and in like manner, you ſhall find ſome that are greene, and yet not rough and courſe. Such as are rough and greene, through their vehement aſtringencie, doe cloſe, ſhut vp, drie, and dull the throat, tongue, and other parts of the mouth: whereas ſuch as are ſimply greene, doe not the like, but coole them onely. The rough and harſh vvines, in as much as they are raw and crude, and cannot be concocted and digeſted of their naturall heat that is but weake; yet they cloſe and bind the ſtomack, and by ſuch occaſion ſtay the flux of the bellie. Wines that are ſimply greene, doe not the like, if they be not harſh, rough, and aſtringent withall: and they doe rather annoy the ſtomacke and all the membranous and neruous parts by reaſon of their cooling propertie and qualitie: vvhich being ſituate in a thinne and ſubtile matter, and therefore apt to pierce 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 vvines doe for the moſt part cauſe crudities, wringings, and the flux of the belly, manifold obſtructions of the liuer and ſpleene, beſides the diſeaſe called the Hypochondriake melancholie. *Galen* denieth, that vvines which are hard and greene, doe heat at all, and that the ſowre, rough, and harſh relliſh doth actually conſiſt in a meane matter, participating both of the waterie and earthie elements: but that the hard, greene, and ſowre reliſh doth conſiſt in an earthie and drie ſubſtance, vvhich doth not manifeſtly participate of the water, or any moiſture. Whereby it may manifeſtly appeare, that neither the one nor the other reliſh hath any heat ruling in it, but cold, and that in the tart, harſh, and rough reliſh accompanied with moiſture, but in the ſowre with drineſſe. But for as much as vvines are ſeldome conſiſting of one onely ſimple and pure reliſh, and that all vvines (of what taſt or reliſh ſoeuer they be) are in temperature hot and drie, you muſt vnderſtand, that ſowre and harſh vvines are accounted cold, or elſe not hot, not ſimply, but by compariſon, becauſe indeed they heat leſſe than other vvines, and that not quickly, and ſo ſoone as they be drunk, 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 euerie day, that all ſorts of vvines, of what taſt or reliſh ſoeuer they be, be they hard or harſh, doe heat manifeſtly, and make men drunke ſooner or later, if they be receiued into a hot and ſtrong ſtomacke: for their heat, as a thing buried in crude and raw matter, although it be a long time firſt, and with great difficultie, breaketh forth at the laſt, manifeſting it ſelfe in the end, and bringing forth the fruits of his maturitie: and this wee may finde in our French vvines, 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 taſt and reliſh of vvines: and now let vs ſearch out the cauſes of the ſowreneſſe or tartneſſe, incident to good and commendable vvines. Some thinke, that vvines grow ſowre through heat, becauſe that daintie, weake, and feeble vvines are changed and turne ſowre in the Spring time and Summer, and in Winter retaine their naturall qualities entire and ſound. This opinion is confirmed, becauſe that weake vvines being ſtirred and tumbled in forcible ſort, or carried farre, or laid in cellars that are open vpon the South or Eaſterne quarter, doe quickly become ſowre. And contrarily, ſuch as are not toſſed to and fro, or remoued, but kept in cellars lying vpon the North, doe not ſowre at all: as if it were by the cold, that their vertues and good qualities were preſerued, and

The cauſe of ſowreneſſe in vvines.

and by the heat, that they were changed and corrupted. So as the like in all points doth befall vvines which are weake and waterish, to that which happeneth vnto a burning candle, and to small and weake sparkes of fire, vvhich 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 heat, that all the weakest vvines turne sowre, and that by hauing their weake heat spent and ouercome by an outward and accidentall heat, which is more strong, causing the same to fade, and for the most part vanish quite away: For a weake nature cannot endure either any strong heat, or vehement motion, but fainting vnder them, it becommeth wasted and spent, and in fine perisheth. But contrariwise, wines which haue their heat strong, and consist of such matter as is not easie or apt to be wasted and spent, being remoued, rolled, transported, or else laid open to the South Sunne, or kept in any hot place, doe not onely not sowre 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 vvines, vvhich are shut vp and layd in cold caues vnder the earth, by the meanes, power, vertue, and efficacie of their owne and naturall heat, which concocteth, digesteth, and ripeneth by little and little their crude and raw matter: the same is effected and wrought in a short time in vvines which are heated by art, that is to say, by stirring and rowling, and by the heat of the Sunne, or of some fine subtill fire, vvhich doth concoct and digest the most crude and raw matter that they can be found to haue. For as the enduring of the heat of the Sunne, and the vnder-going of vehement exercises, maketh stronger and more able the bodies of men that are hot and lustie, but on the contrarie, doth ouerthrow, weaken, dissolue, and coole weake bodies: euen so, hot vvines are sooner ripe, concocted, and digested, by heat, or mouing either of the Sunne, or of some hot fire made neere vnto them: but those which are more weake and waterie, if you heat them ouer-much, doe take great dammage and harme, and are weakened more by the working of such vehement heat, either of the Sunne, stirring, or fire, vvhich corrupteth and spendeth at once, and in a moment, some part and portion of their weake and feeble heat, vvhich afterward, in like manner, by little and little, will be ouercome and wasted, and thereupon such vvines weakened and made vnsauourie. It is the meane and middle heat therefore that all things receiue profit by: seeing the immoderate and extreame is no lesse harmefull than cold. Wherefore, after that the weake heat of vvine shall, for the most part, become wasted and spent, by the outward heat of the ayre compassing it round about, it groweth sowre: and so likewise it is wont to fall out by the maliciousnesse of strong and piercing cold, breaking the heart of the weake heat in the vvine, and thereby killing the same. For when the said heat is quite ouercome and banished, so as that the vvine looseth his fragrant odour and pleasant sent of vvine, it is not said to sowre, and therefore not called vineger, but indeed is called by the name, not of vvine, but of decayed and spent vvine, which the Latines call *Vappa*. Furthermore, vvhereas amongst waterie, weake, and feeble vvines, there are some raw and greenish ones, vvhich wee haue declared alreadie to be enemies vnto cold 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 easinesse to be concocted, and speedinesse in being distributed, become very good and profitable both for sound 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 iniurie offered vnto their strength, abide to be stirred and carried to and fro, especially if with this naturall greenenesse there be ioined some harshnesse and roughnesse. But the second cannot endure to be remoued or carried to and fro: the reason is, the heat of the first is hid, and lyeth in a crude and raw matter, whereof it standeth it vpon, as much as lyeth in it, to acquite and rid it selfe: a readie helpe whereunto, is the moouing and stirring of the same, because hereby it is enabled the sooner to shew

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forth it selfe, and to manifest his force in more powerfull and chearefull manner than 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 heat 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 auncient Writers, affirming that no greene wine doth heat, must be vnderstood of this second sort of vvine, called of the Grecians *Oligophora*, for that it is possible, that the old Writers neuer knew, neither euer heard tell, that any greenish vvines were naturally growing in places and countries that are hot and scorching. Certainely, there is great difference betwixt that tartnesse or sowrenesse, which is an accidentall vice or fault in vvines, and that greenenesse or sharpenesse, which is a naturall 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 vvines, besides the great sharpenesse and acrimonie therein, 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 be subdued and corrected in such manner, as that the vvine once tainted therewith, can at any time be restored vnto his former goodnesse, and made such as may be drunke without the preiudice and hazard of mans health. But on the contrarie, the greenenesse which continueth in vvines, as bred in them, besides that it is alwaies free from the foresaid sharpenesse and acrimonie, is found not to continue any long time, in as much as the raw and cold matter, vvherein the heat of greene vvine consisteth, is concocted by little and little, and thereupon this heat (thus as it were buried in this crude matter) doth by little and little grow strong, and sheweth forth his force more effectually: so that the said greenenesse is by degrees diminished and wrought out, and the vvine made a conuenient and profitable drinke for the vse of men: yea, and that also euen where this greenenesse, through the weakenesse and imbecilitie of heat, cannot any whit be wrought out and taken away: for so wee finde it, seeing that greene vvines are not refrained, but ordinarily drunke, and vsed.

That there is great difference betwixt sowrenesse and greenenesse in wines.

Dioscorides was of iudgement, That sowre and rough vvines caused headach and drunkennesse, vvhereas our harsh and rough vvines, the rougher they are, doe offend and annoy the head so much the lesse. And for a certaintie, all manner of drinke, by how much it is the more odoriferous, and of a thinne and subtle substance, so much the more it disquieteth and disturbeth the braine with his vapours, and ministreth larger matter for the nourishment of rhewmes and distillations. Notwithstanding, if sowre and rough vvines doe happen once to cause drunkennesse, then such drunkennesse falleth out to be of the worst sort, and most rebellious and hard to be ouercome. So then, all our sowrish, harsh, and rough vvines, such as are those of Burgundie, as they are nothing so odoriferous, so neither doe they cause any whit like so many exhalations and vapours, and therefore also doe they lesse offend the head, and procure drunkennesse, than 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 gowt, as also of all others which are subiect to the distillations of the braine.

Such vvines are called mungrell or bastard vvines, vvhich (betwixt the sweet and astringent ones) haue neither manifest sweetnesse, nor manifest astriction, but indeed participate and containe in them both the qualities.

What wines are to be called bastards.

Of the consistence of Wine.

AS concerning the consistence of vvine, some is of a thinne, subtle, 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 subtle substance, some

The consistence of wine.

some are weake and waterish, which the Grecians call ὀλιγόφορα, that is to say, not admitting the mixture of any quantitie of water, of which we will speake more amply hereafter, being (as it were) like vnto water in thinnesse and colour, and hauing little or no sent in them, neither yet any manifest heate. They nourish but very little, for there is is but a very little of their substance turned into bloud: but they cause great store of vrine, and agree better than any other wines, with all sorts of natures, if wee may beleeue *Galen*. There are other weake, waterish, and greenish wines, very ordinarie in this countrie, which are hurtfull vnto old men, and all other cold constitutions, as hauing in them very 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 speedily distributed, but nothing lesse vapourous than white wines, whereupon they trouble the braine, and make men drunken, and so proue hurtfull to such as are rheumatike and subiect to distillations. Such wines are brought hither out of Gascoigne, 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 Gascoigne in strength, so they are better, and without comparison more wholesome.

The grosse and thicke wines, some of them are simply such, and consist in mediocritie, and othersome are very grosse and thicke. We haue heretofore declared that grosse wines are of a more hard concoction, and slow digestion than other wines are; but being once concocted and digested, they yeeld a more firme and solide nourishment vnto the bodie. And of them more than 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 many 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 thin, and indifferent thicke, are profitable for many purposes, and the rather in that they charge not the head as the strong wines do, and those which are of subtile substance: neither yet ingender obstructions, as those which are thicke and grosse doe. The wine called of the Grecians *Oligophorum*, is the holesomest of all others.

The sauour or smell of wine.

Wine smelleth well, or else nothing at all. The odoriferous wines are very apt and commodious for the begetting of good humours, and to recreat and fetch againe the powers of the bodie, 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 than the other sorts of wines. For that which is such, doth help very much for the making of concoction easie, and for the begetting of fine and subtile bloud, but it filleth the head full of vapours and heate, and greatly offendeth the sinewes and vnderstanding: whereupon it proueth very apt to cause headach and a world of rheume. The wine that hath small or no smell, no not any more than water, is called waterish. Such vtter depriuation or 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 bodie. For as nothing (as *Columella* testifieth) draweth to it strange and vnnaturall sents more speedily than wine. In like sort nothing impaireth or communicateth his hurtfull qualities sooner to the heart and noble parts, than 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 waterish, and admitting the mixture of much water. These heate much, hurt the sinewes, make a full braine, stir vp frensies, mightily increaseth the heate of agues, and to be briefe, they are not delayed with a great quantitie of water, and doe good but to a few. There are other which are weake, and for this cause called *Oligophora* and waterie. These wines are of two sorts, some greenish which haue a sensible cooling facultie, fitting cholericke stomaches and hot

Weake wines.

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countries, if so be that a strong stomacke can beare them, and of these wee haue spoken before: others which are waterie, and of a thinne 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 head-ach: they comfort concoction, prouoke vrine and sweat, and offend the head nothing at all: more harmelesse than any other sort of vvine: 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 vvines may: for they are neither sowre, nor astringent, neither yet sweet or sharpe, nor yeelding any kind of smell. Of these kinds of vvine, some (as *Galen* saith) grow in euery countrey and coast, but much more in this of France than in any other, the greatest part whereof doe participate a certaine greenenesse, especially vvhen the yeares fall out cold and moist. Such vvines are called of the Grecians ὀμφάκιον. They are not any way noysome or hurtfull to the head, but very profitable, because (as *Galen* saith) they assuage and take away head-ach, 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 victuals, 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, becommeth 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 annoyances the head is deliuered by the vse of this vvine, vvhich by and by tempereth these putrified fumes, especially if the vvine haue any astringencie in it, whereby the stomacke may be fortified and strengthened. For such vvines doe by and by driue downeward that which is hurtfull in the stomacke, carrying it along with it selfe, and casting it forth: and therefore verie auaileable for such as liue a loitering and sitting life, and apply themselues wholly vnto the reading and studying of good Authors.

The differences of Wines, according to the properties of the Countries.

IT remaineth now, that we briefely discourse of the wines which we vse in Paris, and those such as are either growne there, or brought thither out of other Countries and Regions. The French wines offer themselues in the first ranke, which growing in the grounds & borders neere about Paris, and the whole Isle of Fraunce, 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 yeares, or such as shew forth their seuerall qualities, euerie one in his proper and due season. For such wines doe not heat, burne, and dry the inward parts of the bodie, as the wines doe which are brought vs from Gascoignie, Spaine, and other countries more hot, vvhich by reason of excessiue heat, and too great drinesse, do burne the liuer and spleene in such as drink them: Such wines doe not make a replete, heauie, or offended head with multitude of vapours, as other vvines of Orleance doe. In like manner, such wines doe not load the bodie with superfluousnesse of serous excrements, as doe the crude & greenish wines, which grow in these grounds in cold and moist yeares, or which are brought vs hither from other cold Regions and Countries. Such wines likewise ingender no obstructions, neither doe they gather any quantitie of melancholike humour, as doe the thicke and red vvines, vvhich are sent vs by sea from Burdeaux. These vvines, vvhen they be through ripe, they are of a very pleasant tast, especially such as are yellow, claret, and white, which are of a hot & dry temperature, as other wines, but not aboue the first degree, or the beginning of the second: on the contrarie, the wines of Spaine, Gascoigne, and others such like, are hot & drie in the end of the third degree. Wherfore these our French and natiue wines ought to be preferred before all strange & forraine ones, seeing they burne and heat the bowels & inward parts ouer-much, and that as wel for the

vse of such as are in health, as of those that being sicke, are yet permitted their vvine. Amongst these our French vvines, some are white, othersome are of a deepe yellow, commonly called clarets, or reddish vvines, vvhich are the most wholesome of all, so that they be not accompanied with any sowrenesse and harshnesse: for rough & harsh vvines, and others which are greene, if they become not ripe and mellow in time, by the concocting of their cruditie & greenenesse, they stand for things not fit to be vsed of any but rude and rusticall fellowes, vvhich liue by toyling their bodies vvith great labour and trauell. The rest are all red, more or lesse. But of all other French vvines, there is very small store of sad and light red coloured ones.

White claret vvines being bright, cleare, and through ripe or mellow, in as much as they are of a subtle substance, are easily concocted, digested, and distributed: they prouoke vrine, nourish the bodie but a little, but they reioyce the spirit, 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 goodnesse in the beginning of the second yeare. The red, although they be bright and cleare, are not of so subtile a substance as the former, and therefore they nourish more, and are more fit for such as liue hardly, than for such as liue delicately and nicely: and what although they cannot bee so easily concocted and digested, nor so speedily distributed, neither yet cause such aboundance of vrine, as those which are yellow, claret or white: yet trauell, often exercises and labour doth ouercome all these inconueniencies, yea, and whatsoeuer greater that such red wines may ingender and breed. Amongst them, those which participate and haue any sourenes or astriction, become not mellow before the Sommer heat, whereupon it followeth, that the second yeare, their crud and raw parts being concocted and digested, they grow to bee more excellent than 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 bee ill concocted and digested, and slowly distributed, as also to ingender many obstructions, and beget a grosse and melancholicke bloud. And for these causes are not conuenient but for such as labour and lead a very toilesome life, in whose bodies they being once concocted and digested, do nourish very much, and make them more strong and lustie to go 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 do nourish the bodie a great deale lesse than the yellow and claret wines; but in recompence thereof, they are more easily concocted, digested, distributed, and carried more speedily and readily through all the veines. True it is, that they are accompanied with this inconuenience, namely, that they do more assault the head, (and therefore are to bee accounted greater enemies vnto goutie persons, such as haue weake braines, and are subiect to rheumes and diseases of the ionts, and such likewise as haue weake ioints) than the red which are not yet come to their liuelyhood and maturitie, which strengthen and corroborate the mouth of the stomacke, by reason of some easie astringencie that is in them. Such as in the first moneths become somewhat sweet, if they bee kept any time, in the end grow so concocted and ripe, that hauing left their sweetnes, they proue 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 yeares) if they containe any strong heate, as it were buried in their crud and raw parts, if they be kept any time, are woont to concoct themselues, and attaine to such a degree of ripenesse, as that they are found good, well contenting the taste, and pleasant vpon the tongue: such as those are which are not simply greene, but together with their greenenesse do taste somewhat rough and sower: the other become spent, faded, & decayed in the beginning of Sommer, by reason of the said euaporating and wast of their weak & feeble heate.

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Wherefore you must drinke such vvines as are greenish and waterie, not hauing any sharpenesse or sowrenesse in them, in the beginning of Summer, that so you may be sure, that the great Summer heat shall not cause them to fade vtterly, and quite fall away, by the spending of their feeble heat, caused through the vehemencie of the Summer heat: but those which are greene, rough, and harsh, hauing a strong heat couched and lying in grosse and thicke matter, may be kept very securely vnto Autumne or Harvest 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 heat in the liuer and other inward parts: for such vvines in idle and delicate persons, as also all such as are of a cold temperature, or are growne into old age, doe not onely not become well concocted and digested, but withall engender a masse of many crudities, and much flatuousnesse, become slowly distributed, procure many obstructions, offend the stomacke, entrailes, and matrix: notwithstanding, they sometimes appease the paines of the reines, and become soueraigne for the weake head. And thus much in generall, and summarily, of the nature, temperature, qualities, and differences of French vvines. 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 yerely, through the variablenesse of the constitutions of the yeares, as that it would be hard, yea impossible, to lay them downe in a certaine and assured description. Notwithstanding, the most excellent of and ouer all the rest, are the French vvines 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 vvines, most proper and fit for such as are altogether cast downe, and in whom nature is (as it were) wholly spent, falling thereby into many faintings and swounes, whether they be fallen hereinto by excessiue and insatiable vse of vvomen, or through any other notable and immoderate euacuation. The vvines of Vanues, Argentoile, and Montmatre, and all other vvines which grow in grauelly or sandie grounds 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 tast (especially in hot and well tempered yeares) keeping their proper and naturall temperature, are easily concocted and digested, and speedily and quickly distributed through the veines: and vvhich yet notwithstanding doe not much pester the head, and that because they are not very strong, and therefore doe not heat much.

The vvines 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 moneths astringent and somewhat rough, and thereby doe make more solide, bind, 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 gout, and are subiect to haue the distillations of the head falling vpon the inferiour parts. Notwithstanding if you drinke them before they be come to their full and perfect ripenesse, you shall well perceiue them somewhat the harder to be digested, and to bee more slowly distributed than the French claret wines are.

Wherefore I would aduise men, not to vse them in the beginning of the yeare, but rather in the latter end, if so be they be subiect to the obstructions of the liuer, spleene, and *Mesenterium*, or such as liue idly, or yet such as are dilicately giuen, and haue but little naturall heate within them, as forsooth being the time wherein they abound with much harshnesse and astringencie: which yet may euen then bee verie well vsed of them which are accustomed to trauell, and haue a strong and good stomake. 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, & reserue them diligently to the end of the first yeare, or to the beginning of the second to send them

into forreine countries by sea: which being so transported proue better and more excellent than they did in France, or whiles they lay couched vpon their cantling, as men call it, because the carrying and transporting of them, increaseth their naturall heate, as wee haue before declared, and causeth it by such motion to growe more ripe and concocted. Notwithstanding, very many of these Burgundian wines in hot and drie yeares, are in some countries found good the first yeare.

Amongst the Burgundian wines, those of Beaune are most highly commended, for they are so good as that I dare bee bold to prefer 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 assailing the head, and hurting the braine, than those of Orleance. Likewise the common verse made of the wine of Beaune, hath beene alwaies receiued for true and currant.

Vinum Belnense, super omnia vina recense.

Wines of Cousse. Such as take a very good tast of those wines, doe compare and match them with the wines of the Kings yard at Cousse, whose plants when they were young, were otherwise brought from Greece, in such sort, as that the wines of Cousse and Beaune come very neere vnto the goodnesse and perfection of the Greekish wines. Some also do 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 thin substance, not fuming or being vaporous, of a pleasant tast, and delicat to drinke, if there be any wine in the world so qualified. All these three sorts of wine, of Cousse, Beaune, and Prepaton, are the most excellent that are to befound in all France, & that because both in good and euill yeares, they are found and tried to be better than any other, and readier to bee drunke vpon. Amongst the wines of Beaune, the wine 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 goodnesse and qualities of wines, he must euery yeare consider the estate and constitution of the seasons of euery yeare, as also take a diligent taste of the wines, thereby to giue the more assured iudgement: because it falleth out somtimes the French wines, sometimes the Burgongnie wines, and other some yeares the wines of Orleance doe proue most excellent, and sometimes the wines of Anjou proue better than all the rest. Yea, and as the number, and to be reckoned 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 goodnesse and perfection, wherein they excell all other wines, and are in all good or euill yeares found better than any other, whether they be French, Bourgongnie, or Anjou wines. The wines of Ay are claret and yellowish, subtile, fine, and in tast very pleasing vnto the palate, and therefore eagerly sought after, for the vse of Kings, Princes, and great Lords, 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 proue strong and noble wines, in so much as that you may iustly compare them in goodnesse with the wines of Nerac, notwithstanding they be so highly esteemed of, and had in request for great personages.

Wines of Prepaton.

Wines of Dijon.

The wines of Orleance are set in the first ranke and chiefe place for goodnesse 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 tast, strong, and profitable for the stomach and inward parts. They heate more without comparison, and more nourish the bodie than any French wines, a few excepted, as the wines of Cousse, and Seure. But in the meane time they fill the head and hurt the braine, more than 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 many distillations, as also in those which

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are subiect to inflammations of the lungs, and disposed by their bodily constitution to fall into pleurisies: yea, these vvines are worse than any other for gowtie 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, benummednesse, tettars, wild fire, scabs, and others such like. But on the contrarie, they are most apt for, and best agreeing, with natures and diseases that are cold, and mooued of cold causes, in swounes and faintnesse comming of aboundant and excessiue euacuation, by too much vse of vvomen, vvatching, or other such like causes, and in like manner, of them which languish vpon cold and long diseases. And thus much of that which wee can iudge to be in the vvines of Orleance.

The diuersities of the wines of Orleance.

For as in other Countries and Soiles, so likewise in the grounds about Orleance the earth doth naturally engender diuers qualities and faculties in wine. For amongst others, 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 Chappell, 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 vvines, but somewhat of a more grosse and reddish consistence, vvhich 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, vvhich yet are more healthfull for such as liue idly, and follow their studie, than the vvines vvhich are stronger. At Paris wee account for very precious those vvhich are brought vs from Messay, vvhich although they be farre behind in goodnesse and perfection vnto the best vvines of Orleance, because they are of a thicke consistence, and cost not much: notwithstanding, seeing that by transportation and carriage they become thinner and more ripe, they are the better accounted of, of the Marchants.

Wines of Sainctay, S. Hillaries Chappel, S. Mesmain, and S. de Bouc.

Wines of Messay, of Orleance.

Such as grow neere the Abbey of Neighbours, are cousin germans and much alike to the vvines of Messay.

Orleance wines of the grounds of the Abbey of Neighbours.

The vvhite vvines of Orleance doe surrender and partly giue ouer the praise vnto French vvhite vvines, vvhich is the cause that they are transported but as little as may be out of the Countrey.

White wines of Orleance.

The vvines of Lourye, which doe tast somewhat sweet, are accounted the chiefe of all the rest in that place, as likewise those of Rebechi. The vvines of Aniou, such of them as are good, are (in a manner) all of them white and sweet, and for the most part temperate, or hot and drie (when the temperature of the yeare falleth out hot and drie) strong, noble, and mightie; in such sort, as that amongst all French vvines they keepe the first place for goodnesse. All the while they are sweet, thick, and vnconcocted, they swell the stomacke and the flankes, stoppe 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 boyling vp, they haue cast out all their drosse and dregges, and that they are become sufficiently ripe, concocted, and digested, that is to say, in their middle age (vvhich they attaine vnto the second yeare) as then they become faire, bright, and cleare, 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 sweet, and of a grosse consistence: for they become easily concocted, quickly piercing, sufficiently prouoking vrine, and causing to spit aboundantly. When the yeare falleth cold and rainie, the most part of the vvines of Aniou become raw and greenish, as by experience wee plainely saw in the yeares 1576. and 1577.

When the yeare is hot and drie, the wines growing in Aniou are strong and mightie, and keepe their vertues and qualities entire and whole till they be sixe or seuen yeares old. But when the yeare falleth out cold and moist, they proue to be of cleane contrarie qualities.

Wines of high Normandie.

The vvines of high Normandie (I meane not those which are gathered and beaten

downe with poles) doe somewhat resemble the French vvines, vvhen the yeares fall seasonable, and keepe their naturall temperature: such, for the most part, are of a yellow colour: but not continuing so any long time, they by and by loose their force: which is the cause, that they are easily digested, and quickly distributed and carried along all the veines, vvithout annoying the braine any whit, in as much as they be not strong, or mightie, but oligophorous. But when the yeares fall out cold 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, and therefore it behoueth to drinke them in the beginning of the first yeare. The vvines which grow 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 Compeigne.

Wines of Nerac.

The Countries of Guyenne send vs varietie of vvines. The best of them, are those which grow about Nerac, vvhich come very neere vnto the goodnesse of the French vvines of Cously, which, by reason of their russet colour, are called in the Countrey Russet vvines: in the number whereof, are contained the red vvines, or sad, and light red. They nourish sufficient aboundantly: but in that they make obstructions, and encrease great masses of melancholike humors (especially those which are sweet) they must not be vsed but of them which liue in toile and trauaile. Those which are of a thinne and subtle substance, whether they be white, claret, or of a light yellow, for as much as they haue a very pleasant tast, 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 vvines vvhich we vse at Paris, as concerning the red, the best are those of Cously, Seure, Vanues, and Meudon: and as concerning the white, those of Argenteuell: and then those of Ay, Isancy, & Beaune in Bourgongnie, being wel ripened: next, those of Orleance. As concerning white, the wines of Longiumeau, Palesiau, Massy, Pont d' Anthony: then those of Barsurabe, Aniou, and others, which are brought vs from Arbois, Gascoigny, & 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 tast. The vvines of Gascoignie are vvithout comparison more hot and drie than the vvines of Orleance, and yet they be not so vaporous, neither yet assaile the head so mightily, as I haue proued that the vvines of Orleance doe.

The vvines vvhich Greece, Languedoc, and Spaine doe send vs, or rather, vvhich the delicacie and voluptuousnesse of our French throats 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 honey, as we see vvine Hydromell to be prepared) and Corsick vvines, so much vsed of the Romanes, are very pernicious vnto vs, if we vse them as our common drinke. Notwithstanding, we proue 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 chiefely and principally Malmesey, vvhich we daily note and obserue to be very soueraigne in the crudities of the stomacke, and collickes, by reason of the singular force and vertue it hath in concocting of crude and raw matter, and in dissoluing of vvinde and flatuousnesse. But howsoeuer forraine vvines, vvhich are fetched from farre 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 be, because that besides their manifest outward qualities, they haue also close and hidden ones, vvhich indeed may become familiar and well agreeing, through some sympathie, vvith the inhabitants of those Countries vvhere the said vvines grow: but vnto vs they are enemies, by an antipathie or contrarietie vvhich is betwixt them and vs, which are of a soyle and countrey farre vnlike. Which point if we regard not, we cannot but for the most part offend against the rules of art, and commit

infinite

infinite faults in prescribing and laying downe such diet, and order of gouernment, as shall be for the direction of other mens liues.

Some do 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 deligthing of the swallow: of which sort are the claret, the preparing whereof we haue set downe before, and hipocras, so called, not that *Hipocrates* 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 [illegible], which signifieth to temper. Men ought seldome to temper 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 coldenesse and weakenes in their stomake, may vse them, not as their common drinke, but sometimes only as remedie or medicine.

And thus in briefe you haue what I thought good to deliuer concerning the qualities and vertues aswell of such wines as grow in France, as also of them which are brought vs from strange countries. By the reading of this slight discourse, the Reader which is carefull of his health, may learne to make choice 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 sharp distillations 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 stomake, 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

THE SEVENTH BOOKE OF THE COVNTRIE FARME.

The Warren.

Chap. I.

Of the ſituation of the Warren.

Hitherto we haue as briefely 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 following the order before propounded, 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, and other ſmall cattell, which are bred and fed about our countrie farme, but chiefely in reſpect of the ſelling of conies, which the good houſholder may doe yearely, and that ſome yeares betwixt foure ſcore a hundred doſen, beſide all thoſe which the Lord of the farme ſhall ſtand in neede dayly to vſe, either for eating in his houſe, or for to giue away and gratifie his friends withall. Againe the indeauour, 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 to haue a 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 of themſelues they build earthes and little holes to hide and repoſe themſelues in: and feeding, they looke not for any thing but that which the earth of its own 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 a 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 benefit 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 boroughs in ſuch vnder woods, is ſome what more hard and difficult than that of the Warren: and becauſe alſo that conies liuing in ſmal woods multiplie nothing ſo much as thoſe in the Warren, and that eſpecially by reaſon of foxes, woolues, and other field 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

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 waterie ground: for together with that, the conie hateth aboue all things, moisture and cold; yet for the conueniencie of her making of here earthes, it is requisite that she be in a place, where she may dig with ease for the making of her bed and couert. This peece of ground shall be compassed and be set about after the manner of a parke, with reasonable high walls to keepe out foxes, woolues, and other wild beasts, that they may not iniurie or make war vpon this little beast. Within this conigrie, you must plant great store of brambles, mulberrie trees, and sloe trees, strawberrie plants, wild 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 hearbes, you must sow (if so be the earth bring not forth some of it selfe) great store of sowthistle, groundswell, succorie, coleworts, lettuces, clarie, 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 need not trouble your selfe, seeing the conie hath moisture more than any thing else. Neither yet doe you trouble your selfe to prepare them any other lodging, than the holes which they shall dig and worke out for themselues.

And those burroughs or clappers which shall be meet for them to worke in, which borrough would (if the nature of the ground doe not allow it) bee cast vp somewhat high and sloape wise, so as the water may by all means dessend, and passe from the same without soaking into it, or drawing it vpon any fluxe of raine whatsoeuer: vpon the tops of these burroughs or clappers, for the better strengthning of them, and holding the loose mould together, you shall plant good store of alders and other rough bushes which are quicke of groweth, whose roots once entring into the earth and twinding about the mould, will keepe any from falling, more than that which the conie of her owne selfe diggeth: and although out of the precisenesse of choice we desire a speciall place for the conie Warren; yet you shall vnderstand that the most barrennest ground whatsoeuer (so it lie drie) will serue for the conie Warren, as namely the most dryest heath or downes, or those earths which are ouer runne with linge, gorse, whynnes, braken, broome, ferne, and such like, for a conie feedeth as a sheepe doth, close and neere to the ground, and will gather vp the smallest chiue of grasse that may be, and also delighteth to crop vpon weeds or any other tender bud that groweth within the compasse of her feeding: the snow is her greatest enemie, yet not so much for the want of food, as for the ouer moistning of her food, and so bringing rottennesse: therefore it is meete to haue euery Winter in your Warren a little cob or stacke of hay, wherewith in those extreame times you may fodder your conies, pricking vp little tusts thereof in clouen stickes close by the ground, which they will eate with all greedinesse, for it is a meat at those times which they loue exceedingly: for proofe whereof doe but fodder sheepe neere vnto a connie Warren, and you shall see how euening and morning the conies will swarme vnto the same, eating vp whatsoeuer the sheepe shall leaue, which is not too hard or rough for their eating.

Chap. II.

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 bee done round 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 than arable ground beareth fruit, except there be seed cast into in: nor the vine any grapes, except it bee diligently planted and

and dressed: so neither thinke you that your Warren, be it neuer so neatly and necessarily appointed and trimmed vp, can breed and feed conies, except you first put them there. Wherefore for your storing of your Warren, it is requisite that you cast vp a clapper, wherein you may put your males and females to kindle euery moneth: for to buy so many as should be needfull would be too costly and chargeable for the farmer or housholder. Seeing also that it commeth to passe oftentimes, that after hee hath sold many vnto the vitailers, 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 he 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, kitching, or garden, which may be foure square, narrow, and fenced in with bords, or plaistered walls: indeed it were better to be prouided in the Warren, for so the young ones might more commodiously out of the clapper passe into the Warren at some one side of the clapper, which should bee crosse wrought with lattise worke, and should haue the holes thereof left so wide, as that the young ones might passe out and in vnto their dams.

Whether therefore the clapper be prouided in the Warren, or elsewhere, you must build certaine small lodgings paued with boords, and these must haue holes in them like to those which the conies make themselues in the earth, and euery one seuerall from another, for the conies to betake themselues into: and it will be enough for to allow in such places one male to eight or ten females; and yet therewithall to keepe the bucke close shut vp in his lodging, for feare he should hurt and wrong the young ones, for the male conie (contrarie to the nature of all other manner of buckes) deuoureth the young ones. It is very true, that so soone as it is espied, that the Doe hath kindled, she must incontinently be put into some other hole with the male, that so he may Bucke her: for this is a most certain thing, that so soone as the Doe is emptie and deliuered of her young ones, euen so soone she is full againe of young, in such sort, as that she bringeth forth young euery moneth in the yeare: yea, and being great with young, she letteth not to take the Bucke, and to continue a second burden, which she bringeth forth afterward in due time. So as that this fruitfulnesse in conies hath become so admirable vnto many, as that some haue vpon too slender grounds thought and beleeued that the Bucke should conceiue aud become great with young aswell as the Doe, which is very false and altogether contrarie to all naturall course in the action of generation, seeing that by natures course, it is ordained that the female only amongst beasts should conceiue and ingender, and not the male.

After that the young 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 wild: 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 heauie, 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 old clapper conies, either males or females: for seeing they haue not had their free swing to run abroad as those of the Warren, and haue not learned to saue themselues from dangers and violences offred them by foxes and other such wild beasts, they would bee by and by deuoured; so that thereupon it seemes better to containe and continue them still in their accustomed clapper.

Conies in the clapper are to be fed with coleworts, lettuses, groundsell, clarie, succorie, sowthistle, tarragon, thistles, cich pease, oats, barley and bran mingled together, and other such like things, as we haue spoken of heretofore. In some countries they feed them with mans bloud, such as is to be come by when sicke persons are let bloud: but such manner of feeding of them is starke naught, and maketh their flesh vnsauorie in eating, and very preiudiciall vnto health.

And surely to speake the truth there is no food that a man can bind a conie to eate which is wholesome for them, because they are beasts which aboue all other desire

freedome

freedome of feeding, and to make choice of their owne meat. Whence it comes, that the tame conie is nothing so pleasant to eat as the wild, but is of a much ranker taste, and most easie to be discerned.

Chap. III.

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 said before) notwithstanding, for need, 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 encrease of young ones. True it is, that they are not so fruitfull, nor of such plentifull encrease, and therefore the warren will not be so soone stored by them: for they being accustomed to the warren, become more sauage and strange, but lesse giuen to engender: and thereupon it commeth, that the Does of the warren bring forth young ones onely thrice or foure times a yeare, and those that are kept in house-clappers, once euerie moneth: But howsoeuer it be, if you find it more for your profit to furnish your warren with store after this later manner, it will be sufficient, for six dozen of Does, to put in nine Bucks, hauing more regard and consideration still vnto the Does than to the Bucks, to spare them, if at any time you would take any.

Their feeding shall be no otherwise than hath alreadie beene mentioned: and yet notwithstanding, besides that manner of feeding, if you would haue great store of conies in your vvarren, and that they should be so sufficiently fed, as that they should become fat, it will be good to sowe an acre of ground, or two, with Barly or Oats, not for to make any further harueſt of them, than that which they shall leaue vneaten. You must haue a speciall care, that they feed vpon good nourishment, because their flesh (in like manner as the flesh of Partridges) doth retaine the smell and sauour of that whereupon they feed: as for example, of Iuniper, if their vvarren be full of Iuniper, and so semblably of other things.

If you see any conie-hole stopt with hay, or straw, or such other like thing, doe not vnstop it, but content your selfe onely to obserue it, and to gesse that there are young ones vvithin, vvhich the dam nourisheth: for this is the manner of the Doe, that from the time that she hath kindled, vvhether it be in a house, clapper, or in a vvarren, shee shutteth & stoppeth vp her hole with hay, straw, or some other grasse, such as shee can gather together, and to no other end, but that the Bucke may not find her yong ones, or goe into her hole, vvhere if hee should once come, hee would eat vp all her young ones: this thing being assuredly and vndoubtedly conceiued of the Doe, whether she be in her hole, or else goe forth to feed, she stoppeth her earth: and if so be that at her returne she find the mouth of her hole neuer so little vnstopt, she her selfe will by and by kill her young 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, vvhose mouth they see stopt, for feare of disquieting the dam, and causing of her to kill her young ones. True it is, that shee doth not keepe her hole euermore shut: for at such time as shee knoweth her young ones to be growne great, and become strong ynough to seeke their meat, and to runne with others, shee beginneth to make a little hole for them to issue and goe out at.

Furthermore, you must not thinke, that conies, either males or females, doe at any time forget their earth, be it neuer so farre off: for howsoeuer some say, that conies haue no memorie, notwithstanding they are alwaies mindfull of their hole, be they strayed or wandered neuer so farre from the same. And this is the reason likewise why

A good conie dieth alwaies in her earth.

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 fox, as the ſheepe of the woolfe, which is another caſe beſides his wild and ſtrange nature, why, when he goeth out of his hole, his mind runneth vpon nothing but running, thereby forgetting to thinke vpon other conies holes, and ſo of the Does, and of the eating of her young ones: for although he bee mindfull of his owne earth, yet hee taketh no care, neither caſteth any whit about, how he may find 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 ſaid.

Furthermore, you muſt bee careſull round about the verdge of your conie Warren in the moſt ſecret and obſcure places, and where you ſhall find the greateſt ſuſpition of the trackt of vermine, to place trappes and ginnes which may take and deuoure them, neither ſhall your trappes bee made all of one faſhion, but of diuers faſhions, as ſome of them muſt bee hollow and paſſable both waies, the which are called coffer trappes or hutches: ſome frall-traps, which are to cruſh and kill ſodainely: ſome ſpring-trappes, to ſnickle or halter either bird or beaſt, as alſo pit-falls, and other ginnes: all which the Warrenner ſhall diligently and carefully looke vnto, and baite with the liuers of conies, or ſome other ſuch beaſtes: and in the higheſt part of the Warren, the Warrenner ſhall place a paire of gallowes made of croſſe poales, on which he ſhall hang all the vermine which he ſhall kill, as Foxes, Faulmars, Cats of all kinds, Buzards, Crowes and ſuch like, (all which breed great deſtruction in the Warren) as well to ſcar away other from hunting thereabouts, as alſo to giue teſtimonie to the owner of his care and diligence in preſeruing his ground from ſuch like incumbrances.

Chap. IIII.

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 wild, hauing a pleaſanter fleſh, and leſſe ingendring melancholie than the clapper conie: for the clapper conie lacking libertie, cannot runne nor exercise her bodie, and ſo becommeth more familiar and tame, more groſſe, fuller of haire, more heauie and drowſie, and therefore leſſe pleaſant: againe, if it happen by chance that ſhee come into the Warren amongſt wilde ones, ſhe is by and by deuoured of Foxes or other beaſtes, enemie vnto her, hauing neuer beene acquainted with the the aſſaults and enimities of the ſaid beaſtes before. As concerning other matters, both of them are better to be eaten young and ſmall, than when they are great. Their braine is good to aſſwage the paine that young children doe endure 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 to bee commended than any other part, becauſe it is better than any other helpes to make liniments of for the reines which are grieued with the grauell or the ſtone.

The vertues and ſpeciall properties of conies.

Of

Of Wood.

Chap. V.

What is to be considered before a man go about to plant wood.

TO order and cause a new wood to be planted, you must know 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 bee 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 must see and set downe first and before all other things, that the ground bee of such goodnesse as is requisite: and you must likewise vnderstand that two of the noblest trees and esteemed worth most siluer, are the oake and the chesnut tree, and that for two principall reasons: the one because they beare such fruits as whereof mixed with a little barley or oates, one may make bread in the time of famine: the other, because it is not in the nature of any tree to afford so good timber as the said two, the oake and chesnut tree do, being either of them considered in its proper qualitie. *The oake. The chesnut tree.*

The third excellent sort of trees is the elme: and notwithstanding it be inferiour to the other, because it beareth no fruit, and for that the leafe thereof is nothing so pleasant, in respect of the leaues of the oake and the chesnut tree: yet the tree is worth the hauing, euen for that it may be headded after the manner of willowes, and cut euerie foure yeares to make props and fagots: but the chesnut tree is a great deale better, more neate and fine, and bearing more fruit than other trees which are of its nature: neither doth it stand in need of so good and fat a ground as doth the oake, and againe the Caterpillers and such other vermine doe not haunt and fall vpon it, as they doe vpon the oake and elme. And further when the locusts come, which is euerie three yeares, as I my selfe haue seene, they eate not the leaues of the chesnut tree because they find leaues vpon the oakes: for the yeare of the locusts doth hinder some wood more than of a yeares growth, whereas besides that priuiledge, the chesnut tree doth ordinarily grow more in one yere than the oke doth in two. *The elme. Elmes are barren and beare no fruit. Chesnut trees. Locusts euery three yeares.*

Yet is the oake accounted the King of the forrest, both in respect of his largenesse and hudgenesse, as also for his hardnesse and long indurance; for of all timbers not any is is so long lasting, or fit for building either vpon the land or water, as oake is: it is also the most principall timber that may bee either for boordes, plankes, wainscot, or any other seeling whatsoeuer, and of all manner of oakes, those are preserued and kept as the best and principall which grow vpon the clay grounds, as being the finest, hardest, soundest, and most durable timber: those oakes which grow vpon the sandie grounds being much more brickle, falser hearted, and much lesse able to endure the violence of the weather, or the continuall beating of the wet, when it must necessarily fall vpon the same: whence it comes that the Ship-wright or the Mill-wright euer make choice of the strong clay oake, and the Ioyner of the sand oake, which though it bee lesse durable, yet it is fairest and whitest to looke on. The elme besides the benefit of his head (which is commonly for the fire) is a most excellent timber for the ground worke of any thing, or to be lodged in the ground for any necessarie purpose, especially to make pipes for the conueyance of water; for it is a wood of that infinit toughnesse, that if it lie close

and well hid in the earth, it ſeldome or neuer conſumeth in the ſame: it is alſo rarely good to make bow-ſtaues withall, and excepting the yew is the principall beſt for that purpoſe: it is no leſſe good to make axel-trees either for Wagons, Carts, or Waines, being neither ſo brickle, nor apt to heate and breake as the aſh is: the young plants are good to make beeles for yoakes, by which oxen draw either in waines or ploughes: and laſtly, is an excellent tree to plant in alleyes or walkes, or about houſes for ſhade, bearing a large head like the Cicamore, and fully as round, and as much extended: and the leafe naturally of it ſelfe being broad, and growing ſo thicke, that hardly neither the Sunne nor the raine can poſſibly paſſe through the ſame, neither is it tender but very apt to grow, and may be remoued at any time or age, as long as it is portable and meete to be wielded by the ſtrength of any one man.

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 kinds of wood, may do it, but the moe okes and cheſnut trees a man groweth, the better he doth.

Chap. VI.

Of the ſeating and diſpoſing of a wood for growing of high and great timber trees.

WHo ſoeuer hath a faire plot of eight or ten acres of ground, and would make it ſhew faire and beautifull the firſt yeare, and that by bringing the wood into ſome ſhape and commendable forme, with hope of further delight & pleaſure from the ſame in time to come, muſt for the firſt yere 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 bee made after, as alſo 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 foure ſides, that is to ſay, two of length and two of bredth, mine aduiſe is that all the ſides of the ſaid wal ſhould be couered and clothed with greeneneſſe, and with foure ſorts of trees, and ſix foot thicke and large, ſeeing that nature reioiceth in varietie, that ſo both the walls may be kept from being ſeene, and there may be a walk betwixt two greenes.

The ſaid couerts ſhall bee 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 forth in the ſpring time, as thoſe alſo wherin the nightingale doth make her neaſt: another of the ſides with barberrie trees, which are beautifull and ſerue for very many vſes, ſpreading themſelues in comely ſort, when they meet with a good ground: The third ſide being that whereupon the Sunne beateth at his riſing, with tame oſiers, which may ſerue in husbandrie, and therewithall alſo make a faire ſhew: and the fourth ſide with yong peare-tree plants, with ſome white thorne plants amongſt, as at the end of euerie foure foote ſquare, which are more greene than any other ſorts of trees, and they will bee of vſe for to graft many faire grafts vpon, and good ſtore of great medlars.

Alleyes. The alleyes about the ſaid 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 euery one foure fadome from another, hauing their heads cut off, and their bodies remaining a ſeuen foote high or thereabout, to giue ſome grace

grace and comlineſſe 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 proueth 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 ſute euery ſeaſon of the yeare, he may do it. *Fruit-trees.*

Further, it may ſeeme that all the ſaid trees ſhould be ſet from foure feet to foure feet, and that by the leuell of a line euery way, aſwell 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.

Chap. VII.

Of the manner of planting trees in woods of high and tall growth.

IF you purpoſe to plant theſe trees well, you muſt preſently make dithes in manner of furrowes, as you are woont to doe in the planting of vines, wherein they muſt be planted, to the end the earth may feed it ſelfe in 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 foot 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 worth vpon the other, and not to caſt it abroad, to the end that if the bottome ſhould proue bad ground, or otherwiſe to bee ouer deepe, then there might be caſt into the ſaid furrow or trench ſome of that good earth which ſhal be on the ſide, to the end that the roots of the tree may not buſie themſelues in ſearching a bad bottome, in ſteed of ſtretching forth themſelues in largeneſſe, and you muſt ſo leaue the trenches and furrowes all Winter long, for the receiuing of the rain water when it commeth: and they muſt be ſo wide, as that one may turne a yard euery way round within.

The ſaid trees muſt be planted in December, if it be poſſible, and that the times be fauorable, as when it freezeth not: for great froſts are great enemies to the good proceeding of this worke. *The time to plant trees.*

You ſhould rather caſt to plant trees that are alreadie growne vp, than to deale with the ſowing of acornes or cheſnuts, becauſe it requireth great care and induſtrie to make the ſaid ſeed to grow: and as concerning the ſeed it ſelfe, that of the cheſnut groweth ſooner than that of the acorne. And whenas you go about to ſow them, it muſt be done with leauing a foot diſtance betwixt one and another with the largeſt, and in the end of great froſts: becauſe that during the ſaid froſts, the mowles do eate the cheſnuts in the ground.

As concerning the planting of trees alreadie growne, they muſt be taken vp with as many roots as they can poſſibly, and after they be taken vp, if there be any of their roots broken, to cut the ſame: and thoſe which are not broken, to cut their ends for to refreſh them, the length of three or foure fingers, more or leſſe, as the roots may beare it. You muſt make choice of a young plant, that hath a liuely and cleane barke, not rough and ouergrowne with moſſe, a good and handſome root, a ſtraight ſhanke, and long without ſcares or frets: and before you plant it, it will bee good to caſt into the furrow ſome good earth, taken from the ſide of the ſame trench, to the thickneſſe of a finger or two, and vpon that, to ſet the tree which you are to plant, then couering the rootes with earth, to ſway vpon them gently with your hands, that ſo there may not any aire ſtay 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 maner of a gutter, to the end that if it raine, the raine and moiſture may run away the more eaſily.

And to the end that the planted trees may grow the better, you muſt lay their longeſt roots 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 bee laied along in the furrow, you muſt inlarge the furrow a little in the place where ſuch roots 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 moued and ſtirred.

You muſt likewiſe cut off by the top of the ſhanke all the trees which you plant, that is to ſay, ſuch as you plant to make high and tall tymber trees, or which you mind to ſet along by the ſides of the alleyes, till you haue not left aboue the length of fiue or ſixe foote to ſtand out of the earth, to the end that they may the ſooner beare a great quantitie of woode: but the trees which you are purpoſed to plant for lowe and ſmall wood, muſt bee cut, that there bee not left aboue a foote and a halfe, for it will bee ſufficient if they haue the length of foure inches out of the ground: neither is there any danger in mingling cheſnut trees with oakes, except a man bee purpoſed to plant one wood with oakes onely, and another with cheſnut trees: and as concerning the thickeneſſe of the ſaid trees, it needeth no deepe aduice, for they may bee either of the thickeneſſe of a cheſnut, tenniſe-ball, or ſome other ſuch like: but rather the care is, that they bee well and newly taken vp, and planted the ſame day they bee taken vp, or at the fartheſt the day following.

Neither is it doubtfull, but if they bee of much larger and bigger compaſſe, as ſeuen or eight foot in length, (aboue the ground) and twentie inches in compaſſe: yet they will grow as well and as faſt as the younger, eſpecially, the elme aboue all other trees: nor would I wiſh you, if you can get them, to chuſe plants of any leſſe bigneſſe. And howbeit that ſome Woodwards are of opinion, that the aſh would bee planted but of a meane length, becauſe ſay they, looke how much it is aboue the earth, ſo much it will ſhoot out in roote vnder the earth, before it begin to proſper aboue: yet it is but a falſe coniecture, and if you intend to haue a faire and a large tree, you muſt chuſe the faireſt and largeſt plants that you can get, and then planting them in a conuenient and due time, and in a fit earth, they will in one Winter recouer that roote which ſhall preſerue them from periſhing euer after: againe you muſt remember that as ſoone as you haue fixed your plants in the earth, and couered them wel & cloſe, which is a principal care, you muſt then forthwith couer the top of the head all ouer, and at leaſt halfe a foote downeward with clay and moſſe ſtifly well tempered together, and if the clay be apt to chap or riue, then you ſhall mingle a few aſhes therewith, and ſo keepe it cloſſe couered till the new branches ſpred forth and couer the head all ouer, then when thoſe branches are put out, and are tender, you ſhall plaſh and order them at your pleaſure, whether it be to make a tree for timber, or for ſhade, for ſpeciall marke, or for any other deuice whatſoeue.

The wood thus planted, muſt bee twice 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 yeare, it muſt bee cleanſed and freed from them.

Chap. VIII.

Of the time when wood is to be tilled and husbanded.

That dreſſing of the earth is neceſſarie for young plants.

IT is here to be noted that the chiefe & principall furtherance and comfort that can be giuen to trees, either reclaimed or wild, is the labour beſtowed vpon them in due & conuenient time, for the more they are husbanded & tilled, ſo much the more do they grow and proſper in greatneſſe: wherfore dreſſing and labour is neceſſary for young plants of all ſorts of trees,

as

as well ſmall as great, and eſpecially the foure firſt yeares, they muſt be husbanded throughly, and plied with two ſeuerall dreſſings euery yeare as vines are, that is to ſay, towards the middeſt of Aprill, when they begin to put forth their buds, and towards the end of Iune, & this muſt be done in moiſt & rainie weather, and not when drying winds or heat doth raigne, becauſe the ground then ſtirred would do nothing but turn to duſt, which would deſtroie the young ſprings, and cauſe them die: againe the ſaid earth dreſſed at ſuch time doth more eaſily conueigh the drieneſſe 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 ioineth it ſelfe cloſe vnto the roots, and lendeth vnto them of his moiſture. The other reaſon is, for that the earth being newly opened, by its lying open, giueth paſſage for the water, raine, or dew, to enter more eaſily vnto the ſaid roots.

Such dreſſing of the earth in dry weather is not good.

The principall labour to be made about all trees, is to root out all weeds, ſeeing they are giuen to grow euery where in all grounds, and which, if they be ſuffered to grow vp, ſucke, purloine, and carrie away the ſap and ſubſtance of the earth in ſuch ſort, as that there is not left 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 the vine and gardens, the which the more they are husbanded and tilled, ſo much the more fruite, and young ſprings they put forth, and become ſo much the more beautifull and faire. So it will bee the chiefe worke after you haue planted trees, to cauſe them to be ſo dreſſed in ſeaſons that are moiſt, and that twice at the leaſt: and that will cauſe them to grow greater of wood, greater of boughes, and to yeeld double profit.

To pull vp weedes by the roote.

And if extraordinarily the Sommer proue rainie, ſo as that your plants become ouergrowne with much weeds, it ſhall be left to the diſcretion of the husbandman, if he ſee that his plants be not cleane, to beſtow a third dreſſing vpon them, to the end that the weeds may not ſmother the bud, and deuour the ſubſtance of the earth: for all plants come of heate and moiſture; and if they be ſuffered to bee intangled with weeds, they will be ſmothered and in danger to be loſt.

The third dreſſing of trees. The growth of plants commeth by heate and moiſture.

Chap. IX.

That wood diligently dreſſed and husbanded, doth profit more than that which is not ſo dreſſed and husbanded.

I Know that there are many trees which are dayly ſeene to grow 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 ground, or of the countrie; and yet if ſome one do ſo eſcape, a hundred die for it: and this I ſay for their ſakes, who hauing once planted would be loath to looſe their paines, and do conceaue that all or the greateſt part doe thriue and proſper: which conceat is notwithſtanding like to deceiue them, if they proceed not to dreſſe and husband them in conuenient ſort, after they haue beene well planted, as is aboue declared.

Wherfore I haue applied my ſelfe to trie the iſſue of tilling of them according to art and knowledge, as alſo of leauing them vntilled: and I find that although the tree which groweth in the deſert do grow vp ſometimes vpon a perfect growth, notwithſtanding it groweth not in ſo ſhort time, and the greateſt part of it dieth: and that which is well tilled and planted, doth grow twice ſo much, and that not one of ten of them is loſt, but that all proſper, of what ſort of wild trees ſoeuer they by.

The experience of dreſſing trees and of letting of them go vndreſſe.

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 yeares at the moſt,

much like vnto the young plant of a vine, it will be found that the coſt will not bee great, ſeeing eſpecially that after ſuch coſt, it is freed from any more for euer. For after that wood is once grown vp to ſuch height, as that weeds cannot ouergrow nor ouercrow it, (which will be in foure or fiue yeares if it be husbanded) then it ſmothereth the weeds that grow vnder it, and keepeth away from them both the Sunne and the aire with its ſhawdow, in ſuch ſort as that they die, and are not able to ouerſhadow or do any hurt vnto the wood.

Chap. X.

Of remouing, lopping, pruning, and making cleane of wood.

THat your plant may grow the better, it is likewiſe requiſite to remoue trees from a high, drie, and bad ſoile, into another ground that is more moiſt and fat, if it may be: by this meanes, in finding a better ſoile, the tree will take more eaſily: 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 than leſſe, as may be ſeene in old forreſts which are ſituated in fertile and fat countries, or in thoſe which grow in ſandie and bad grounds, as in Solonge, where woods continue very ſmall and vntimely.

Wood of Solonge.

Woods planted and ordered (as is abouesaid) the firſt, ſecond, and third yeare, muſt not bee touched with any edge toole: and yet notwithſtanding towards the third and fourth yeares, 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 braunches ſo ſtripped of their ſmall twigs as your owne diſcretion will beſt direct you. This pruning of them would bee towards the moneth of March, after that the cold is paſſed and gone, 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 middeh of April, at what time they begin to bud and put forth, but then it muſt be done gently, holding the ſhanke of the tree faſt and firme without mouing or ſhaking of the rootes: And this pruning may be done euery yeare, if you will, and by this meanes, you may cauſe a new ſpring of ſmall woods to grow, and to put forth eight or ten branches, fit for to bee plants for high and tall trees, by cutting away the ſide ones, and leauing three or foure of the faireſt branches growing from the foot of the ſaid ſmall wood, ſo cut downe, according as you ſhall think good, ſo that you make choice of ſuch as grow vp high and ſtraight: and if they be not altogether ſtrong enough to hold vp themſelues, you may helpe them with ſome prettie ſmall props and ſtickes, the better to hold them vp.

Chap. XI.

Of the manner of ſowing acornes for the growing of oakes.

Whereof wild trees do grow.

ALl ſorts of wild trees grow of remoued plants, hauing good rootes, or of branches, or of the ſeeds and fruits which they beare, and wherby they renew themſelues. Of the remoued plant, there hath alreadie enough beene ſaid, as that it is more profitable, and of a more ſpeedie and certaine growth: and therefore the ſooner able to beſtow paſtime vpon his maſter.

The

The ſecond way to grow trees, is to grow them of branches writhen and buried in the earth, gathered in ſuch ſort as that they may put forth roots, and take againe, as *Columella* hath very well ſet downe at large: notwithſtanding, this way is long in taking root, and putting forth; 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 be-before it is reaped: as alſo for that in this our countrie of France, there are many vnderwoods and ſtrong hedges, where are to be gathered very eaſily, and that in great quantity, plants of all ſorts of wild trees.

The third way is to ſowe them of ſeed, as of acornes, beech maſte, and of the ſeed that is in the leaues of elmes, for they bring forth ſuch trees as thoſe whereupon they themſelues did grow: and ſuch ſeeds may bee ſowne 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 bee ſowne with the plough, as beanes and all other kinds of graine are: or with a debbell, by which name they call a little ſticke of halfe a foot long, and a finger or inch thicke. And of the three waies, the beſt is to plant or ſow the acorne or other ſeed with the dibble, euerie one halfe a foot from another, or one foot euery one from another, 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 foot all along the furrowe: notwithſtanding, it is not needfull to plant them ſo neere euerie manner of way; for the earth would not bee able to beare ſo much fruit as would growe, and ſo it muſt either be tranſplanted, or elſe it would proue out of courſe like a misborne thing. Wherefore you may leaue betwixt euery two furrows and plants, foure, fiue, or ſixe foot diſtance ſidewaies: and againe, if all proſper not, the worſt and moſt ill fauouredly growne may be pulled vp.

And euen as ſmall and great wood is to be dreſſed and husbanded, ſo alſo muſt their ſeed be ordered, but not after the like ſort: for the mattocke would pull vp the ſeed, and therefore they muſt be vnderdigd very deftly, and the weeds weeded out all along the furrowes where the ſeedes are ſet, to the end that the weeds do not ſmother them, and that they doe not blinde them, taking away their aire, Sunne, and ſubſtance of the earth, whereof euerie young ſeede and plant ſtandeth greatly in neede, as to bee holpen thereby to gather root and life, which is as yet in them very young and tender. By which meanes, you ſee that paines and labour taken about acornes and other ſeedes of trees, cauſeth them to grow and proſper ſo, as that they get the better of other plants, which in continuance might ouergrow them: but if they remaine as forſaken things without husbanding, they vvill bee choaked vp vvith vveedes, and the greateſt part of them die: and thoſe vvhich ſhall eſcape, vvill bee but of low growth, and appeare like an vntimely birth, lacking helpe and dreſſing, except through long continuance of time they preuaile, and then they which planted or ſowed, ſhall not reape any pleaſure by them, but their heires onely.

And in all ſuch ſorts of planting and ſowing of vvild ſeeds, it is neceſſarie to fence a place ſowed or planted, ſo vvel and ſufficiantly with ditches, hedges, or vvals, as that no beaſt, horſe, or other may enter or get in: as alſo that thereby the vvood may bee kept from being handled or cut downe by paſſengers: for if the ſprig bee bruſed or broken, the tree remaineth all parched and readie to drie.

According to this manner of planting of acornes, or cheſnuts, they may very vvell and conueniently bee ſet and planted amongſt the plants of trees, and rootes that are planted farre enough off one from another, for ſo they may haue roome betwixt two plants, being diſtant the quantitie of nine or ten foot, or thereabout, ſeeing it is meet and conuenient to nouriſh trees, and to deſtroie vveedes. By this meanes the acornes and cheſnuts, or any other thing planted vvith the dibble, or ſowne in furrowes, is dreſſed amongſt the reſt, and made to enioy ſufficient ſcope betwixt

two

two plants, there to take their full growth, vntill they become like high, or very neere with the trees planted or cut, neither do they coſt extraordinarily for their dreſſing, becauſe the whole ground is to be 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 vnderwoods, woods, buſhes, nor hedges whereout any may get a plant growing from roots, I haue thought good to intreat a little of the meanes of making it grow of ſeed. Like as is woont to bee done with fruit trees, and thoſe which are takn from their nurceries, to bee tranſplanted into gardens: ſo may you doe with wilde trees, which after that they are growne to a ſufficient thickeneſſe, and come to beare ſeede, may be otherwhere either grafted or planted, as you ſhall wiſh or deſire. For which cauſe heere ſhall be put downe a treatiſe and chapter thereof, ſeeing the former intreateth of the intermingling of ſeed with plants, for to helpe out the ſtoring of woods which are alwaies to continue.

Chap. XII.

Of the way to make wild trees grow of ſeede, to be remoued afterward into ſome other place.

Certaine it is (as hath beene ſaid before) that euery tree groweth either of a plant, or of ſome great fruit, or of a writhen branch: and for that there are many places where one cannot come by plants eaſily, it is to be attempted to make the ſaid plant to grow of ſeed, as is practiſed in the nurceries of tame aud garden trees, by dreſſing and dunging ſome halfe acre of good ground, and then to ſow it with ſuch good ſeed as that the trees beare, whereof you would haue plants.

That is to ſay, with acornes, if you would ſtore your ſelfe with oakes: or with cheſnuts, if you deſire cheſnut trees: or with the graine and ſeed which groweth in elme trees, if you would haue elme plants. The ſaid grains and ſeeds muſt be ſowne in a fat, fertile, well dunged, and ſomewhat moiſt ground, and that reaſonably thick, therein couering the ſaid ſeeds two fingers thicke, and cauſing them to be well watered afterwards, and couered with bright ſtraw, to the end that this fruit of young trees ſprouting out of the ſeed, bee not eaten and broken by birds: but when they begin to grow, the ſtraw muſt be taken away, and the weeds growing amongſt them weeded out with the hand.

For which cauſe the quarters wherein the ſaid ſeeds are to be ſowne, muſt be made long and narrow, that ſo the weeds may eaſily be puld vp out of euery place, without treading vpon the quarters, and that the ſaid weeds may be gathered gently, to auoid the doing of hurt vnto the roots of the young trees: and oftentimes they muſt be watered at night after Sunne ſet, and in the morning before Sunne riſe.

And after they be growne three foot high, you muſt remoue them into ſome other ground before they take any ſtronger root, and ſet them good two foot diſtant one from another, till they haue got a competent thickneſſe, ſuch as is before deſcribed, and dreſſe and cleanſe them from all weeds, and water them in the time of drought. Thus you ſhall reare plants of all ſorts, and of all manner of wild trees, to remoue afterward into ſuch places as you will, and ſuch trees will grow 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 be found in ſufficient ſtore: for otherwiſe in countries furniſhed with vnderwoods, and woods, there are inough to be found without taking this plant, and tedious protract of time: wherefore this article will be of vſe, where there is neither vnderwood, wood, nor plant to become by in hedges or buſhes, and not in this countrie, where there are many to be gotten, and thoſe very good.

Chap.

CHAP. XIII.

Of the pleasure that commeth of the planting of wilde woods, as also of the profit comming of the same.

AMongst the things required for the making of a place of perfect beautie, *Cato* in his booke of Husbandrie saith, That it is needfull to haue nine principall things: The first, is a Vine, yeelding great quantitie of vvine: the second, a Garden, full of little riuers: the third, a Willow groue, and Oziar plot: the fourth, a great Riuer: the fifth, a Medow: 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 Oakes to beare Acornes. Now amongst all these seuerall points of perfect beautie, we may see, that the principall is vvater and vvood: because that hauing vvater, one may easily make Medowes, Garden plots, Oziar yards, and Willow plots all along the vvaters and riuers: and hauing vvoods, one may make Vnderwoods, Warrens, Bushes, and high great trees also, if it be lopt and pruned vnderneath, to make it shoot 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 root 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 branches, as it had imployed in the nourishment of many branches of small vvood, and affoordeth growth vnto the straighteſt and fairest branches, which are left behind 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 vvood of high and great growth cut downe in good and seasonable time, vvhich putteth not forth small vvood and bushes, if cattell and beasts be carefully kept out.

Nine things requisite for the making of a beautifull place

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: wherefore in respect of the pleasure, profit, and beauty of the place, it is meet and conuenient to plant woods.

Woods haue in them three commodities.

But the chiefe pleasure and pastime which commeth by wild woods, is, that being ioined 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 its diuersity of greenenesse, it maruellously delighteth, and with great contentment recreateth the sight.

The pleasures and pastimes that the wild woods afford.

The second pleasure or pastime is, that the woods (being neere vnto your lodging) are alwaies full of all sorts of pretie birds, which sing Sommer and Winter all the day long, and most part of the night, as nightingales, and such other like, whereby their songs become ioyfull 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, popingaies, stares, cranes, and 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 there are to bee had conies, hares, squirrels, and other sorts of small beastes pleasant to behold, and of great seruice for prouision of vitaile.

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,

Sunne, and contrariwiſe, cooling you, vvhether the heat will or no: and therein you haue alſo to behold a comfortable greeneneſſe, both vpon the boughes and ground, vvhich keepeth his graſſe greene through the cooleneſſe and ſhadow of the trees.

The ſixth is, that in Winter being in the ſaid vvoods, you are out of the iniurie and force of the vvinds and great cold, becauſe they breake them off: and further, in theſe vvoods you are ſolitarie, and may vſe your leaſure, in reading, writing, or meditating vpon your affaires, vvithout being diſquieted or diſtracted, or drawne to caſt your ſight abroad ouer any farre diſtant place or countrey, in as much as the ſight cannot pierce through the boughes or buſhes.

The profit of woods.

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 Oake maſt, Beech maſt, Cheſnuts, and other fruits vvhich the trees beare, vvhich ſerue for the fatting of hogges, and are very neceſſarie for other beaſts: and for that alſo you may, vpon certaine yeares, make fall of your vvoods, to make faggots, fire vvood, ſtakes to hedge in garden plots, and other incloſures, as alſo rods for Vines to runne vpon: and if there be cut downe any Cheſnut-trees, or Haſels, you may (beſides the things alreadie named) make your profit of hoopes and boords for vvine-veſſels, in ſuch ſort, as that theſe your vvoods 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 ground imploied about the bearing of wood

By this meanes you may coniecture, that the ground which is imploied in bearing of vvood, is not any thing inferior in profit vnto others which are imployed in bearing of Corne and Vines.

It is very true, that the commaundement, or vſe and profit of it, are longer time in purchaſing, and more hardly come by, than that of Corne and Vines, but it recompenceth it with the double in the end: for the firſt charges once defrayed, nature bringeth forth both the greater and the ſmaller vvood vvithout the helpe of man, and vvithout any labour: vvhich happeneth not in Corne-grounds and Vineyards, ſeeing they beare not, except they be continually husbanded and tilled. Wherefore, the ground imploied in Beech maſt, and vvood, 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 vvood.

I haue heere beene the more vvilling to declare and lay downe in briefe the pleaſure and profit that commeth of vvoods, to the end, 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 trauaile and long attendance, ſeeing that afterward both the pleaſure and the profit doth abide and continue vvithout any further coſt, and that vnto them and their poſteritie.

Wherefore, my counſell and aduiſe vnto the good husband and maſter of the familie, is, that he apply himſelfe to ſuch planting of vvoods betimes, that ſo he may the ſooner enioy the pleaſures thereof: and that in ſo doing, he caſt them ſo, as that they may grow as neere vnto his lodging and houſe where he meaneth to dwell, as poſſibly may be, 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 vvindes annoying the houſe, if they be well placed, and ſo conueniently, as a man may be able to diſpoſe them.

CHAP.

CHAP. XIIII.

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 here aboue, what time and manner is to be obserued in the planting of all wild 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 vvoods and forrests of France, and to declare briefely what manner of ground they delight in, and in what soile they proue 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 soyle, be not planted in a moist and low soyle: as also, that the trees vvhich delight in a moist and low countrey, 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 here in a word expresse my mind 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 kinds 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 grow both in the Easterne, Northerne, and Southerne parts of the vvorld, vvhereof we are almost altogether ignorant, and which, in respect of the diuersitie of the regions, doe not grow at all in this climate: and of these I mind not to speake at all, because my purpose is only 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, and not of strange and forraine ones, the trouble about which would be more than 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 world, and their vertues, properties, natures, and seeds, they may see the same at large in *Theophrastus*, in his fourth booke of the historie of Plants, and in the third booke, vvhere hee particularly entreateth of the kinds of wild and sauage trees: for he particularly runneth through the nature, force, vertue, seed, and manner of planting of euery wild tree, as well those of the East, North, and South, as those of the West: but it shall be sufficient for vs at this time to declare the nature of fiue or six sorts of trees which commonly grow in the countries hereby, and of their kinds, and what ground euery one delighteth in.

Now therefore to begin, there are two sorts of trees in generall: the one is called vvater-trees, or trees delighting to grow in or neere vnto the brinkes of vvaters, in medowes, and in low and watrie places: the other land trees, or trees delighting to grow vpon the firme and solid land, and vvhere the waters by inundations or ouerflowings vse not to come. But first we will speake of the trees liuing in or about vvater. *Trees liuing to fiue neere the water.*

CHAP.

Chap. XV.

Of the Aller, Poplar, Birch, Willow, and other trees haunting the water.

YOu ſhall vnderſtand, that there are foure or fiue ſorts of trees, vvhich of their owne nature grow neere vnto vvaters, and which, except they haue great ſtore of moiſture, doe hardly proſper or grow at all: of vvhich, amongſt the reſt, the Aller is one that moſt coueteth the vvater: for the Aller is of that nature, as that it would be halfe couered in vvater, and at the leaſt, the moſt part of the rootes muſt of neceſſitie be within, and ſtand lower than the vvater, for otherwiſe they would not take, inſomuch, as that trees of ſuch nature ought to be planted in moiſt medowes, and neere vnto the brookes running along by the ſaid medowes, or in marſhes, for in ſuch grounds they take and grow exceeding vvell. This tree is apt to take in moiſt places, becauſe it is a vvhite vvood, containing much pith, and putting forth great ſtore of boughes in a ſhort time, by reaſon of the moiſtneſſe of the vvaters vvherewith it is nouriſhed and fed.

The ſaid Aller trees may be planted two manner of wayes, as namely, either of branches gathered from great Allers, or of liue roots digged vp in moiſt places, together with the earth, and ſet againe in the like ground, and that in ſuch ſort, as that the halfe of the ſaid roots be lower than the water, and the vpper part couered with earth the depth of one finger: and in the meane time, before they be planted, they muſt haue all their branches cut off too, within a fingers length of the root, and it will put forth againe many young ſhoots, after the manner of Haſel trees. You may read more of the Aller tree in the fourth booke.

white wood. There is another ſort of vvater-wood, which hereabout is commonly called white wood: of this kind, are the Poplar, Birch, and other ſorts of wood, which grow cloſe by the water ſide, and vpon the banks of ditches, ſprings, and little brookes: and it is a common practiſe in Italie, to lay their conueyances and pipes to carrie their vvater from riuers throughout their grounds, of thoſe woods. And theſe kinds of trees may be eaſily planted of young roots along by the vvater and riuer ſide, both moſt conueniently and profitably, 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 ſtead, be taken faire and ſtrong plants, 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 than the Poplar. And this is the cauſe why it groweth ſo plentifully in cold countries.

The other ſort of vvater-wood is the Willow: vvhich, as wee finde by proofe, groweth nothing well, except it be in a moiſt and watrie countrie, and neere ioyning to vvaters. The manner of planting of Willowes, is commonly, by ſetting of Willow plants, and thoſe ſuch as are of a good thickneſſe and ſtrength, as namely as great as one may gripe: for looke how much the ſtronger and thicker they be, ſo much the moe ſhoots will they put forth, and ſo much the ſtronger. This tree differeth much from the Aller: for the Aller will haue his rootes all within water, but the Willow would ſtand higher, and ſpread his roots along into the ground that is wet and moiſt, and neere vnto water, vvithout hauing his roots altogether in the water: according whereunto, it is continually ſeene, that Willowes planted vpon cauſeyes & banks, hauing ſome ditch of water ioyning thereunto, & that in ſuch ſort, as that their roots may reach but to the brinks and edges of the water, proue fairer, taller, and more plentifull than thoſe which grow in waterſh medows, becauſe that for the moſt part their roots ſtand moiſt in water. You may read of the Holme tree in the fourth booke.

I ſay

I ſay not that Willowes, Allers, Poplars, & ſuch white wood will not grow in high places, notwithſtanding that it is their nature to grow neere to water, and doe proſper beſt in ſuch places: and if they be planted in high places, and farre from vvater, they are hardly nouriſhed, and put forth very little in growth: inſomuch, as that a hundred ſuch trees as are planted in waterie countries, vvill yeeld more vvood than a thouſand planted in a drie countrey, notwithſtanding all the indeuor and husbandrie that can be vſed, yea, and they will periſh and die a great deale ſooner.

This I ſay, becauſe it is eaſie to make them grow, and to husband them in a high or hillie place, by watering and dreſſing of them in conuenient ſort: vvhich labours, as they are not performed without great coſt, ſo if they happen to be neglected, it proueth to be the loſſe and ſpoile of the trees: vvhereas if they be planted in ſome place that is fit for them, and neere vnto vvater, according as their nature requireth, they vvill proſper vvithout the toile or induſtrie of man vſed therein. Notwithſtanding, for as much as the firſt yeares after they be planted they haue much to doe to ſhoot and nouriſh their roots and ſuch branches as are alreadie put forth, it wil be beſt to free them of all ſuch twigs as they ſhall put forth the firſt yeare, to the end they may more eaſily feed their roots, as alſo that thereby the force of winds, which would take ſuch hold of offall, may not ſhake and looſen thoſe which are alreadie faſt, for vpon ſuch cauſes trees doe many times die, be they neuer ſo well planted.

I know that it is not alwaies required, that ſuch paines ſhould be taken (eſpecially about thoſe which are orderly and conueniently planted) in planting or pruning of them: notwithſtanding, I ſay thus much for them vvhich goe about the making of cloſe alleyes 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.

Herewithall it muſt be noted, that whenſoeuer you ſet or plant any ſuch trees, you muſt ſo doe it, as that it need not a ſecond doing: for if any of them ſhould die, it would be the harder to ſet others in their places, ſo as that they would thriue, becauſe the ſhadow 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 be redreſſed. *Trees muſt be well and ſurely planted at the firſt.*

The time to plant Willowes, Allers, Poplars, and other ſuch vvoods, is alwaies found beſt in the beginning of Februarie, or at the later end of Ianuarie, vvhen the great cold is paſt, being otherwiſe apt to hurt ſuch plants as are new ſet, as hath alreadie beene ſaid. *The time to plant Willowes, Allers, &c.*

As concerning the properties of theſe trees thus delighting in watrie grounds: the leaues and flowers of the white Poplar, although they be a little hot, doe notwithſtanding make a very cooling ointment called *Populeum*, good to take away the heat of inflamations, as alſo the milke out of womens breaſts that are newly deliuered.

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 charcoale, ſeruing for the melting of mettall: And of the rinde are made links to giue light in the night ſeaſon: for to ſuch end doe country people vſe them. The iuice of the leaues mixt amongſt the runnet of a Calfe, doth keepe cheeſe from wormes and rottenneſſe. If you pierce the ſtock of the Birch-tree, there will come forth a water, which being 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 cleanſeth and taketh away the filthineſſe and infections of the skin.

Chap. XVI.

Of Ashes, Elmes, and Maple-trees.

Ash-trees.

THe Ash doth naturally craue a low and waterish countrey, and therefore doth grow more plentifully in such places than in high grounds: and therefore, for the most part, they must be planted in such low and waterie grounds, though not altogether so low and waterie as the Willow, Poplar, and Aller doe craue: howbeit notwithstanding they may be planted in indifferent grounds, and Elmes will grow well therein. Their proper nature is to delight in moist valleyes, for therein they prosper well, and grow vp to a great height, with straitnesse and beautifulnesse of Timber: Notwithstanding, this is a common vvood, vvhich may be planted in all sorts of grounds, howsoeuer that it like better in fat and moist grounds, than in those which are but indifferent: but they much dislike the drie, rough, stiffe, and grauellie grounds, if they be not mingled with moisture. The auncient Woodwards vsed to plant them most in hedge-rowes, and on the tops of great bankes or ditches, where they might haue drie standing, yet be continually fed at the root with a little moisture: vvhich sure was a very good and husbandly manner of planting the Ash, neither shall you at any time see it prosper better, than when it is planted in such places. It is naturally of it selfe a little more tender than other wild trees, and desireth a more gentle and loose mould, which maketh them prosper the best in mixt hasell grounds, or in moist sandie ground: yet if they doe take in clay grounds, as doubtlesse with a verie little care they will doe, one Ash so growing, is better, tougher, and more seruiceable than any three which are taken from the sandie or mixed earths. It is a timber of no lesse precious vse than any other whatsoeuer: for of it are made all your best Pykes, Byll-shafts, Halberd-shafts, and diuers other engines for the vvarres: of it also is made all manner of Plow and Cart-timber vvhatsoeuer, as Beames, Heads, Skeathes, Hales, Spyndles, Shelboords, Cart or Wayne bodies, rings for Wheeles, Naues, Harrow-buls, Harrow-teeth, Axle-trees, and any other instrument or engine vvhich desireth a firme, gentle, yet a verie tough vvood: a timber that must bend before it breake, and not by any meanes be too extreame portable or heauie in the carriage, but both light for the hand of him that shall vse it, and also strong ynough to endure the stresse or labour it shall be put vnto; also it must be gentle and soft to cut: all which the Ash is, more than any other tree whatsoeuer.

Elmes of three sorts.

There are three sorts of Elmes: The one is, of those vvhich haue a small little leafe, and a blacke stalke: The second hath a large leafe, and a reasonable vvhite stalke: The third of them hath a verie large leafe, and the stalke as it vvere all vvhite. Those vvhich are to be chosen for planting, are those two later, for they are of greater growth, and are vvoont to prosper better: besides that, they are fairer, and put foorth moe boughes, making thereby a greater shadow.

Male and female Elmes.

Of these three sorts, there are both males and females: vvee call those females, vvhich beare most fruit, and the thicker seede; and the males vvee call those vvhich are lesser, and beare their fruit of seede, in the middest of the leaues, and that in such sort, as that they seeme to beare neyther fruit nor seede. And for this cause there are manie that vvrite of Husbandrie, affirming the said tree to beare no fruit or seede, and that it groweth either of a plant or shoot. And of this opinion vvas *Trèmelius*. Notwithstanding, it is certaine, that euerie leafe beareth his fruit contained within the middest thereof, and thereof vvill Elmes grow, being sowne in due time. And of this opinion is *Columella*; and experience it selfe doth shew the same: hee making two differing sorts of Elmes, calling the one sort, the fairest and tallest Elmes of Fraunce: and the other sort,

Columella.

Italian

Italian Elmes. And as concerning those faireſt Elmes, if they be to be found, they muſt be planted, becauſe they grow vp the ſooner that way, and put forth much larger boughes. *Theophraſtus* and ſome other vvriters doe make them leſſe differing, according to the countrey wherein they grow. I haue beene the more willing to deſcribe them according to their kind of leafe and vvood, that you may the more eaſily know them. I would haue you to looke backe into the fourth booke, and there you ſhall find their natures and vertues more at large deſcribed. The ſoiles in which they moſt of all delight, is a verie ſtiffe clay: and the principall vſe of them, ouer and aboue the making of Bow-ſtaues formerly mentioned, is the making of naues for vvaggons or cart-vvheeles, for vvhich they are more excellent than any other vvood vvhatſoeuer; and the more knottie and twound they are, a great deale the fitter they are for that purpoſe: ſo, that as the cleane growne, ſmooth, and euen Elme ſerues for other purpoſes, ſo the knottie, vneuen, and moſt crooked Elme will ſerue for this. *Theophraſtus.*

Amongſt theſe ſorts of trees wee may place the Maple-trees (called of the Latines *Aceres*) becauſe in their nature they ſomewhat reſemble the Elme: They craue the like ground, namely, a fat and moiſt ground: they grow (as the Elmes doe) in all arable grounds: they put forth in a ſhort time great branches, and but little greeneneſſe. This tree hath a verie white bodie, beareth ſmall leaues like the leaues of three-leaued graſſe, and doth not breed or gather any great ſtore of vermine. It naturally groweth ſhorts crooked, rugged, and beareth ſeldome any great length of timber: yet where it groweth otherwiſe, the timber is verie firme, white, cloſe, and durable. It ſerueth for diuers excellent and good purpoſes: as namely, it is the beſt of all other, by reaſon of the wonderfull whiteneſſe thereof, for all manner of inlaid works, vvhich Ioyners vſe: alſo it is excellent for all manner of Turners vvare: as for the making of trenchers, diſhes, bowles, ſewing kniues, and other implements for the Table, prouided, it be euermore of at leaſt a yeare or more ſeaſoning: for if it be wrought greene, it will warpe, ryue, and be indeed for no purpoſe. Many vſe to ſeaſon it in a drie houſe, but then it asketh a longer time, and the ſappe will be much longer in conſuming: but the beſt way is to let it lye abroad all the firſt Winter, and take all wet which falls, for that will driue the naturall wet of the ſappe ſooneſt out of it, and then houſe it the Summer following, and then after you may ſafely worke it at your pleaſure.

The Aſh is contrarily inclined: for thereon breedeth oftentimes ſuch abundance of vermine, as that thereby all their leaues are eaten and bored verie full of little holes. Of this ſort of Trees, as well Elmes, as Aſhes and Maples, the beſt are thoſe vvhich grow the ſooneſt, and ſpread out the largeſt boughes in a ſhort time. *The Aſh.*

As concerning the properties of theſe three kinds of Trees, wee haue ſpoken in the third booke, in the Chapter of Balmes, how there is made a ſingular balme of the little fruit that is found incloſed in the leaues of one of the ſorts of Elmes. Furthermore, the vvater vvhich is found incloſed in this little fruit, maketh the face neat and ſhining, if it be vvaſhed therewith: againe, double linnen clothes being vvet in this iuice or vvater, and applyed vnto children vvhich are burſten, becommeth a ſingular remedie for them. The ſame iuice alſo put into a glaſſe-bottle, and buried in the earth, or dung, for the ſpace of fiue and twentie daies, being well ſtopped, and hauing the bottome ſet vpon a heape of ſalt, proueth ſingular good to cure greene vvounds, if they be dreſſed vvith tents ſteeped in the ſaid iuice. *The vertues of the Elme.*

The Maple-tree in this countrey amongſt other things is had in requeſt, becauſe of the boughes thereof there are made Bowes, and that becauſe they are ſtiffe and hard to bend. *Shooting bowes.*

The Aſh-tree hath a ſingular vertue againſt the venime of Serpents: for it is ſuch an enemie, and ſo contrarie vnto them, as that they dare not draw neere or approach vnto the ſhadow thereof: and againe, as hath beene proued 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 on the other ſide, the Adder will rather aduenture to paſſe through the fire, than ouer the Aſh-tree leaues. For this cauſe Nature, as one carefull of the good of mankind, hath prouided, that the Aſh ſhould 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, or other beaſts of the Farmers ſhould be bitten by ſome ſerpent or other venimous beaſts, there cannot be found a more ſoueraigne remedie, than to ſtampe the tendereſt leaues that are to be found vpon the Aſh, & ſtraining out the iuice, to giue it the beaſt to drink, and afterward to lay vpon the grieued 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 draw out great ſtore of water from ſuch as haue the Dropſie, as alſo to make fat folks leane. Alſo the keyes of the Aſh, or that which is the ſeed thereof, is of moſt ſingular vſe amongſt Painters, and being ground, maketh him diuers pretie and moſt vſefull colours. The Aſh is onely an enemie vnto corne, and will not ſuffer any to grow by any meanes within the compaſſe of the ſhadow thereof: and therefore it ſhould as ſeldome as might be, be planted in corne-fields, except you leaue ſuch large ſpace of greeneſwarth betwixt it and the corne-lands, that no part of the ſhadow may extend to the ſame.

Chap. XVII.

Of Cheſnut-trees.

THe Cheſnut-tree is a ſtrong and mightie tree, much like vnto the Oake. It is a faſt wood, and good to build withall, as alſo to vnderprop Vines, and make other workes, which are made of Oake. It groweth of the ſeed of the Cheſnut, which is ſowne after the manner of the Acorne, and ſo it groweth and putteth forth his ſhoots both ſooner and more effectually, and taketh commonly in all grounds, yea euen in the ſandie or grauellie grounds: but yet it ſhunneth the grounds that lie open to the pearching heat of the Sun, affecting altogether the little hils and mountaines that are cold and lie vpon the North. The ſeed or fruit thereof (called the Cheſnut) is ſometimes ſpoyled, and that after the ſame manner that the Acorne is, as by too much drineſſe, vvhich maketh it that it cannot bud or bloſſome: or by too great ſtore of vvater, putrifying 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 eat or wound the Cheſnut & Acorne within the ground. The nature of the young plants of Cheſnut-trees and Oakes are much alike, and the manner of dreſſing them alſo: and if you would haue them to put forth ſtore of boughes, you muſt cut them after they haue beene planted three or foure yeares, and not before, and that in the beginning of the Spring time, for ſo you ſhall make them put forth twice as much: and yet it is not without danger to vſe any edge-toole in cutting them, for thereby they oftentimes die. So then, if there put forth any branches or ſprigs along the ſtem, in the firſt, ſecond, or third yeare, you may at the beginning of ſuch their putting forth crop them off, and breake them away with your hand whiles they are young and tender, and not to take any knife vnto them, and then you ſhall doe beſt.

CHAP. XVIII.

Of the Oake and the differences thereof, Hornebeame, Beech, Linden-tree, and others.

YOu shall vnderstand that the oake is a tree bearing most fruit, and affoording the most commoditie of any tree in France. And for this cause it hath been accustomed to preserue and keepe store of these kinds of trees in old woods and forests, as being most necessarie and profitable. Some do make three sorts of this kind 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 okes are Robur, Quercus, Ilex.

The first of these sorts is a kind of oake which is very thicke and strong, hauing a bodie that is very thicke below, and full of knots, and very mightie, hauing great roots, and spreading far and wide in the ground: and at the top of the bodie or bole which is but short, it beareth many and great quantitie of boughes that are also thick, spread abroad and long, taking great roome: and for that cause are planted the one from the other a great distance, that so they may haue roome for their boughs to spread. The wood growing vpon this sort of okes is fitter to make fire wood of, than timber to build withal, because it hath but a short bole, and riseth not vp to any great height and squarenesse, hauing his boughes therewithall crooked and writhen. There are many forrests to be seene, wherein this kind of oakes doth grow, as namely those whose oakes are thicke and short, standing far a sunder, and yet spreading on a great breadth aboue.

The other sort of oakes hath both a reasonable thicke and long bodie, as namely of the height of foure or fiue good fadomes, as also foure or fiue reasonable tall and straight boughes growing thereupon, but not spread forth into any great breadth, as neither the bodie is so well couered and shadowed therewith as the former. And this sort of oakes is good for beames of houses, 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, than 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 oakes hath a small bodie, but very straight, and growing to the height of seuen or eight fadomes without any boughes, and at the top of their said bodies, bearing but smal store of boughes and wood, in such sort, as that all the wood is in the bole, seeming to bee onely a nosegay at the top. And this kind of wood standeth very neere the foot one of another, rising vp equally and alike vnto a great height and greatnesse, and the forrests furnished with this kind, 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 for walls or roofes. And of this kind of wood there are many forrests in this countrie.

All these three sorts of wood do 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 third sort small and little. Againe, they beare some of them acornes that are more long and thicke, other some, acornes that are more thicke and short, and againe other some of them, acornes that are smaller and longer.

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 fruit: whereupon it followeth, that if those are to bee called the females which do beare most store of fruit; wee must needs call those males,

The male and female of oakes. Theophrastus.

which beare leaſt fruit. When they beare fruit, or when they beare none, the barren are called the males, and the fruitfull the females. *Theophraſtus* putteth another difference betwixt thoſe which are fruitleſſe: but I meane not to write any thing thereof at this preſent, purpoſing to be brieſe, & to referre ſuch as are deſirous to ſee the ſame, to *Theophraſtus* his third booke of the hiſtorie of Plants, vnder the title of the Oake: as alſo in like manner for all other ſorts of trees, vvhich I ſpare to ſpeake of, that ſo I may not exceed my former purpoſe and intent.

The barren is called the male, and the fruitfull the female.

All theſe ſorts of Oakes are of great continuance and length of life, inſomuch, as that ſome allot vnto them to liue three hundred yeares: that is to ſay, one hundred to grow, one hundred to ſtand at a ſtay, and one hundred to decline and fal away: which may eaſily be ſeene in the old and auncient forreſts.

That the life of an Oake containeth 100 yeares of growth, 100. yeares of ſtanding in a ſtay, and 100. to periſh and die in.

And whereas the Oake is long in comming to his growth, and long in dying, it is no maruell, if the Elme, the Aſh, the Maple, and other vvoods, ſet in the like and no better ground, doe put forth their boughes and branches more ſpeedily and mightily than the Oake: for the nature of thoſe trees is to grow vp ſoone to their perfection, and ſo to die and fade ſoone; and the nature of the Oake is to grow by leiſure, 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 yeares, and man not before he be fiue and twentie; and ſo the whole continuance of the one is more durable than that of the other. This I ſpeake in reſpect of ſuch, as by and by looke to haue vvood to become growne according as they can wiſh: giuing them to know, that to anſwere their haſtie deſire, it will be beſt for them to plant Aſhes, Elmes, and Maple onely, ſeeing they are giuen to ſpring mightily, and in a ſhort time, putting forth more boughes in ſixe yeares, than the Oake in tenne. Whereas they which deſire to haue a more pleaſant, profitable, and durable vvood, though it be longer in comming to perfection, muſt plant Oakes, Cheſnut-trees, Horne-beames, and Beech-trees, for they are reaſonably long in growing, and of like durableneſſe, and put forth but ſmall ſtore of ſhoots, like as the Oake, 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 been ſaid before. It is very true, that the Oake delighteth in a fat, good, and drie ground, euen as the Horne-beame and Beech-tree doe: notwithſtanding, the Horne-beame and Beech will grow more eaſily in a ſtonie ground or countrey, although that euery ſort of trees whatſoeuer be 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 Oake, 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 heat of the Sunne: and yet Horne-beames and Beeches doe grow in grounds that are but indifferent: yea, they may be ſeene to proſper well in hard and ſtonie grounds.

The horſe at his full growth at fiue, and a man at fiue and twentie.

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 alwaies hath beene ſaid.

Horne-beame.

The Horne-beame-tree (called of the Latines *Carpinus*) groweth in the ſame ground, and after the ſame faſhion, that the Maple doth. The vvood 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 drineſſe, and which maketh the beſt coale. Which proceedeth not from the naturall defect of the Tree, but from the ill husbanding and planting of the ſame, vvhen either it is not regarded at the firſt ſhooting vp, or is cropped by cattell vvhen it is tender, or elſe planted in a ſtiffe-binding earth, in vvhich it ioyeth not at all, any of vvhich makes it grow crooked, knottie, and vvithout forme, and ſo conſequently of ſmall vſe: but being planted on good ground, vvhoſe mould is looſe and yeelding, and husbanded and defended from other annoyances, it vvill ſhoot forth ſtraight and vpright, and beare a verie ſmooth and moſt delicate timber:

which

which timber is of great price and estimation amongst Fletchers, for it maketh the strongest and best arrow of any wood whatsoeuer, and is preferred farre before either birch or brasill, as being of an indifferent and true poise, neither so light as the one, nor so heauie as the other.

The beech (called of the Latines *Fagus*) as it resembleth the hornebeame verie 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 bee had in request, because it bringeth forth its fruit which is called beech-mast, and that of no lesse profit than the acorne, at the least the squirrells, turtle doues, cranes, and such other birds doe fat themselues thereupon. The men of auncient time did make their wine vessels, fats, and drinking vessell of the rind of this tree. *Beech.*

It prospereth exceedingly well in grounds that are full of pyble, flint, and other small stones, whether mixt with sand or clay it mattereth not, prouided that the mould bee not too much tough and binding, neither exceeding hard and rockie, but apt to breake and yeeld to the roote, which by reason of the greatnesse of the boale or bodie of the tree, which may euer compaire with the oake, ought to haue both a strong and a deep hold. The timber of the beech is good for boards or planks, or for any Ioiners ware, as bed-steeds, tables, stooles, chaires, cubbords, chests, or any other thing, except wainscot, or seeling, which by reason of the softnesse of the timber, it is not so much allowed therefore: it is also very good for Turners ware, and especially, for great washing bowles, traies, and such like, or any other houshold necessarie, which desireth a plaine smooth wood, which is gentle to cut, and delicate for the eie to looke on.

The linden tree groweth very well in hillie and high mounted places, so that they bee notwithstanding moist and somewhat waterish: the wood thereof is fit to make coffers and boxes: and the rinde to make cradles or baskets to lay young children in. *The linden tree*

The corke-tree craueth the like soile with the ash and oake: it is no where to be found in all the forrests of France, but in great store in the countrie of Bearne and Foix. This is a thing worth the noting in this tree, namely, that it may haue its barke pilled off without doing of any iniurie vnto the same: and this is ordinarily imploied about the making of hiues for bees, and for the soles of slipper and pantofles, vsually worne during the cold time of Winter. *The corke-tree.*

The yew-tree (which the Latines call *Taxus*) is very common in our forrests: it groweth well vpon mountaines or rockes. The wood thereof is good to make coffers, foote-stooles, bowes, arrowes, darts, and other such like stately Ioyners works of, because it hath diuers veines, and is not subiect to be eaten of wormes. Some there are which report, that it is deadly either to eate or sleepe vnder the shadow of it, and that if a man eate of the fruit thereof, it casteth him into an ague and bloudie fluxe. *The yew-tree.*

And seeing I haue resolued to be briefe, and not to passe beyond my bounds, it shall be 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 throughly intreat of all the parts of the same, seeing they are to be had euery 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 foresaid trees, the oake hath many things, and those of great commendation. The leaues, his nuts (which are called gals) his messeltoe (as being called the messeltoe of the oke.) The tender leaues thereof which are but as yet budding and putting forth may be distilled, and the water thereof is singular against the fluxes of the liuer, to breake the stone, and to stay 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 find 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: *The stone. The whites of women. Presages.*

if

if the little worme doe creepe, it is a ſigne of dearth that yeare: and if the ſpider doe run to and fro, it prognoſticateth an infinite number of peſtilent diſeaſes. The oake apples dried and made into pouder, do ſpeedily ſtay all manner of flux in the bellie. The miſſeltoe of the oake taken inwardly, doth greatly aſſwage the torments of ſuch as are taken with the falling ſickneſſe.

Falling ſickness.

The beech-tree is much vſed to make baskets and maunds of for to gather grapes in. And hereof likewiſe men in old time were woont to make veſſels to ſacrifice vnto their gods. The leaues of the beech-tree chawed, do heale the chaps of the lips, and the frettings of the gums. The fruit of the beech-tree, which is called beech-maſt, dried and made into aſhes, being mixt with liniments, is of great force and power againſt the ſtone and grauell.

Chaps of the lips.
The grauell.
The ſtone.

Of the Parke for the keeping of wilde beaſtes.

Chap. XIX.

Of the ſituation of the Parkes, and of the manner of ordering the wild beaſts therein.

TO the end we may not leaue any thing out of this deſcription of a countrie farme, whereof the Farmer or Lord of the ſoile may make any profit, or elſe take any pleaſure, my aduice and counſell is, that according as the places and grounds may conueniently affoord, there bee parkes made neere vnto the farme, therein to breed and keepe hares, wild goates, or fallow deere, wild ſwine, and ſuch other like wild beaſtes, to the end that the Lord and Maſter of the place may now and then recreate himſelfe therewith, and take his ſport in ſeeing the ſaid wild beaſtes hunted; as alſo that if he bee diſpoſed to make any great feaſt or banket, he may therein be ſure to find as in his kitching or larder houſe for to make readie meate of, beſides the benefit which the good husband may make yerely thereof by ſelling of them.

The profit of the parke.

The parke would be ſeated (if it be poſſible) within a wood of high and tall timber trees, in a place compaſſed about, and well fenced with wals made of rough ſtone and lime, or elſe of brickes and earth-lome, or elſe with pales made of oake plankes. You muſt foreſee that there bee ſome little brooke of ſpring-water running along by the place, or for want of ſpring-water and naturall ſtreames, you muſt prepare ditches and pooles walled and daubed in ſuch ſort as that they may receiue and keepe the raine-water.

The ſituation of the parke.

Nor ought the parke to conſiſt of one kind of ground only, as all wood, all graſſe, or all coppiſe, but of diuers, as part high wood, part graſſe or champion, and part coppiſe, or vnder-wood, or thicke ſpring: nor muſt theſe ſeuerall grounds lie open, or as it were in common one with another; but they muſt be ſeparated one from the other by a ſtrong rale, through which deere or ſheepe (but no greater cattell) may paſſe, for they muſt haue the full libertie of euery place: neither muſt the parke be ſituated vpon any one entire hill, plaine, or elſe valley, but it muſt conſiſt of diuers hills, diuers plaines, and diuers valleyes: the hills which are commonly called the viewes or diſcoueries of parkes would bee all goodly high woods of tall timber, as well for the beautie and gracefulneſſe of the parke, as alſo for the ecchoe and ſound which will rebound from the ſame, when in the times of hunting, either the cries of the hounds, the winding of hornes, or the gibbetting of the huntſmen paſſeth through the ſame, doubling the muſicke, and making it tenne times more delightfull: the plaines, which are called in parkes the launds, would be very champion and fruitfull, as well for the breeding of great ſtore of graſſe and hay for the feeding and nouriſhiug of his deere or other wild beaſtes, as alſo for the pleaſure of

coursing

coursing with grey-hounds, when at any time the owner shall be disposed to hunt in that manner; for when the hounds shall haue hunted the game from the thicks vnto the launds, then the grey-hounds being placed thereupon, may in the view of the beholders course vpon the same, and beget a delight past equall. The valleyes which are called the couerts or places of leare for wild beasts, would be all verie thicke sprung or vnderwood, as well for the concealing of them from potchers and purloyners, as for giuing them rest and shadow in the day time, who cannot indure to lie open to the view of passengers, or vndefended by darkenesse and obscuritie: also these thicke couerts are defences for the wild beastes to saue them from the cunning sents or noses of hounds when they pursue them, making their doubles and windings therein so intricate and cunningly, that they scape many times their most mortallest mischiefe: also in these thicke couerts, the hunted deere finding an vnhunted deere where he lodgeth, will forthwith beate him vp and lie downe himselfe in his place, making the hounds vndertake the fresh deere, and so escape his owne danger, which in the open places he cannot doe: and the parke is a place that must containe all things for the good and safetie of the game it keepeth. Thus you see the parke must consist of view, launds, and couert, and the situation of hill valley, and plaine. Now for the water of which formerly we spoake, you shall know it is very right necessarie in parkes, as well for the reliefe and sustenance of wild beasts, as for the watering, washing, and moistning of the grounds to make them fruitfull. Besides whensoeuer your game is extreamely hunted, and brought to the pinch of extremitie, then he will flie to the water, which is called the soile, and there find reliefe and rescue: for according to the saying of the profit *Dauid, As the Hart desireth the water brooks &c.* so a deere in his greatest extremitie findeth reliefe and is refreshed by drinking or bathing in the water. For a better proofe whereof, I will repeate vnto you a notable true and very memorable experiment approued by a gentleman of good worship and place in his countrie, who being a very good hunt-man, and very well experienced in the nature of wild deare, It was his chaunce to bring vp a tame Stagge, which by the excellencie of his keeping and full feeding, grew a verie faire and great deere, as soone as the deere was three yeares old, hee caused him to be broke to the saddle, and being himselfe a good horse-man, and hauing a good horse-man then attending vpon him, what through the ones instruction and the others paine, the Stagge became so well reclaimed, that not any gelding in his stable was more obedient to the man, better mouthed, or more tractable to carrie his rider than the Stag was; in so much that when at any time the gentleman went forth a coursing, or to other pleasure, he would cause the Stagge to be ridden forth with him, also when he traueild any smal iournie the Stagge also carried a man with him: but the rider of the Stagge found that after hee had gone three or foure miles, the Stagge did euer faint and grew wearie, which as soone as he imparted to his master, he presently commanded him to ride the Stagge when he so fainted to the next water, and there cause him to drinke, onely calling to mind the saying of *Dauid* before rehearsed, and he found that so soone as the Stagge had drunke, hee was as fresh as at his first setting forth, and by that obseruation onely could make the deere trauell twentie and fiue and twentie miles a day without any trouble, by which it is most credibly found, that not any thing can be more necessarie in a park than store of sweet & cold water, of which the riuer is best, the fountaine next, and the standing pond the worst, notwithstanding the standing pond how euer it is the worst water, yet it is very commodious, because in it you may breed all sorts of daintie fresh fish, as the carp, bream, pike, tench, and perch: also in them you may both feede and breede all manner of wild foule, by framing little Islands in the middest of those lakes or ponds where the swans, bussards, elkes, and other small foule may frame their nests and lay their eggs out of the daunger of the water. In the most conuenientest launds of the parke, which is most spatious and fruitfull, and which hath the greatest prospect into the parke, and where the deere take greatest delight to feed, there you shall build the lodge or house for the Keeper to dwell in, and it shall by all meanes stand cleane, and open

euery

euerie way, ſo as there may bee no ſecret approch made vnto the ſame, but ſuch as the Keeper may eaſily behold from his windowes: and it ſhall ſtand ſo faire in the view of the laund, that from thence a man may ſee euery way round about the ſame, and ſome part vp into the high woods, and other moſt ſecret parts of the parke, ſo that when the leaſt diſturbance or troble is offered vnto the deere, a man may from that lodge take notice of the ſame: this houſe muſt bee made like vnto a little forcellet or fort ſtrong and with diuers angles, the windowes whereof ſo flanking one another, that when any approach by ſtealers or other malitious perſons ſhall bee made to the ſame, the Keeper may from thence either with his bowes or with ſome other engines ſo annoy them, that they ſhall by no meanes beſiege or coope him vp in his houſe, (which is the practiſe of many ſubtile knaues) but that hee may diſpight their force, iſſue forth and defend himſelfe and his charge againſt them: if there bee any part of the houſe which the windowes cannot flanker as the doores, iaumes, or ſuch like, then ouer them ſhall bee made little loopeholes, through which the Keeper may either ſhoot, caſt ſtones or ſcalding water to make them auoid from the ſame: cloſe by this lodge ſhall bee built the kennell for the Keepers hounds, and the cocke-houſe where hee ſhall keepe his fighting cockes and hennes: alſo without it ſhall bee made a place for him to hang the hornes which his deere ſhall caſt at the latter end of the Spring time: alſo in your parke as well at both the ends of your laund which are the next adioining to the couert, as in all other ſuſpitious places where any man may in the night, courſe your deere, you ſhall place long ſtickes or ſtaues which are foure or fiue foot in length, and two or three inches in compaſſe, with both the ends ſharpned exceeding ſharpe, and ſtuck ſloapewiſe into the ground, and ſtanding not aboue a foot and a halfe or two foot aboue the the ground at moſt, and theſe you ſhall ſet croſſewiſe very thicke, that when a ſtealer ſhall come to courſe in the night, his grey-hound may run and goare himſelfe againſt the ſame: you ſhall alſo by no meanes alongſt your pale walke plant fruit trees, blacke-thorne, or bullies, for they are the occaſion of much hurt and deſtruction to your pale, vnder the colour of gathering the fruit, and breed a great decay to your quickſet, beſides many other miſchiefes which are excuſſed by the pretence of getting that fruit onely: yet would I not haue the parke vnfurniſhed of all manner of fruit, for beſides the pleaſure thereof, they are an excellent maſt in which deere infinitly delight, and are fed very much with the ſame. You ſhall not by any meanes in one parke mixe the red deere and the fallow deere together, for the red deere is a maſterfull beaſt, and when the time of bellowing commeth, he growes fierce and outragious, ſo that hee will bee entire Lord of the field, and will kill the fallow deere if they but croſſe him in his walke: and therefore each muſt bee kept ſeuerally in ſeuerall parkes.

Againe Cranes, Rauens, and wild-geeſe are excellent things to be nouriſhed in a parke, and will ſtand in ſteed of Keepers vnto the ſame: for in the night time, if any thing ſtir about the ground to which they are not continually accuſtomed, they will with their clamours and noiſe not only giue warning to the Keeper, but any that ſhall dwell neare to the ground, not ceaſing their noiſe till the ground be at peace and reſt againe.

Prouiſion of food for wild beaſtes,

It is meet alſo that there ſhould bee great ſtore of graſſe ground in the place, and trees bearing fruit: amongſt all other trees there is ſpeciall account made of acornes, wild apples, wild peares, ſtrawberrie trees, & other ſuch like, for the feeding of theſe wild 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 feed vpon in the foreſts, they muſt haue giuen vnto them of the harueſt fruits, and be fed with barley, pure wheat, beanes, the droſſe of the wine preſſe, and whatſoeuer elſe is good cheape.

And to the end that theſe wild cattell may the better know that there is ſuch prouiſion of meate for them, there muſt bee amongſt them ſome tame ones, and ſuch as haue beene trained vp in the houſe, for they will follow any whither, and draw the other

other after them, and so bring them to the place of prouision for their feeding. And this order must not onely bee obseruedin Winter, but also when they be great with young, and when they haue calued, that so they may feed them the better. And to that end there must regard be had to see when they haue founed, that there may be corne giuen them,

The wild bore would not be let grow elder than the age of foure yeares, for hee groweth vnto this time, but afterward paireth and becommeth leane by reason of old age: wherefore it is meete that hee should bee sold whiles he is in his beautie and prime.

A Stag may be kept a long time, for he is young a great time, and liueth a great while.

But as concerning small beasts, as hares, they must not be put in a parke fenced only with postes and pales: for seeing they are small, they will easily passe through the gaping and open spaces, and hauing got through, run away: Their parkes therefore must be walled about, and their feeding of fourage or maslin corne, succories, lettuses, cich-pease, barley 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.

Chap. XX.

Of the situation of the Heronrie, and of the ordering of the Heronshewes.

WE haue intreated in the first booke of certaine strange and wild birds, as peacokes, turkeies, phesants, and small hens, and haue said that it is a curious and difficult thing to breed and bring them vp: and we 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 bird, without any profit. True it is that princes and great states, which loue the game, may take some pleasure and delight in the flght of the hauke for to take the herne, as also some good liking in swallowing the sweet morsels in eating of the herne, but especially of the stomake and brest: in like manner there are some that say, that a Herne is a princely dish, and meat for a king; but all this pleasure is not come by without double costes. Let vs then put case and admit that the Lord and Master of the farme bee a Prince or great Lord, and that hee beareth a verie good will to all manner of game, and to fare daintily, then hee may so prouide, as that he may now and then haue some sport and pastime with the Herne, either in taking or eating of the same: wherefore it shall not bee a misse if we speake a word or two of the Heronrie, to the end we may not let slip and ouerpasse any thing in generall of all that which may be necessarie for the beautifying and perfecting of our farme and countrie house.

To prouide therefore for a Heronrie or place to breed herons 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 solitarinesse, and very fantasticall, as not giuen to stay in any place, but such as pleaseth him verie 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 onely where it is coniectured, that in passing along, they haue begun to rest & settle themselues, as in a place that is most pleasant and delightsome to them. For the Heronrie must in prouiding be two manner of waies considered of: as first there must consideration be had of their food 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 readie

What place is fittest for a Heronrie.

Two things giuing occasion to make choise of some certaine place for a heronrie.

readie at his commaundement. And ſecondly to allure and draw herons as they flie along: for the herne that is ſhut 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, do thervpon ſtay and make their neſts vpon the vppermoſt and higeſt part of the heronrie, whereupon it commeth, that hauing laid their egges, by and by their young ones are taken to be ſhut vp and made faſt in the heronrie.

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 bee had in diſcerning of the commodiouſneſſe and fitneſſe of the place, and that is gathered by hauing knowne the herne now and then to haue contented and pleaſed himſelfe therewith: for if a man ſhould go about to ſhut vp a herne in ſuch place as he taketh no delight in, hee would neuer haue young, but die out of hand. Furthermore, it is requiſite that there ſhould paſſe ſome ſmall ſtreame of water through the middeſt of the heronrie, for the heronſhew is a water bird, & taketh delight and pleaſure in water, as liuing altogether vpon eeles, and other ſuch like liuing fiſhes. The building of the heronrie muſt bee made altogether for light, wrought with verie cloſe latiſes and clouen plankes, about the height of ſix fadome from the ground, and well couered aboue, to the end that the heronſhewes flying by may make their neſts vpon the heronrie in fit and commodious ſort.

The food and nouriſhment of the heronſhew.

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 eate vntill they be 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 libertie.

What place is beſt to flie at the heronſhew.

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 by flying him with the hauke, that then he muſt beware not to do it neere vnto the heronrie, for otherwiſe he 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, wold forſake it, and the incloſed would grow 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 he is a water bird, his fleſh is full of excrementuous parts, hard to bee digeſted, and that aboue any other foule of the riuer. There is nothing more to be eſteemed of in him for to be eaten, than the fleſh which is gathered about his ſtomake or breſt. Moreouer, ſome hold and are of opinion that his bill being ſteeped for ſome time in wine, doth make the wine forcible and able to procure ſleepe, and bring the bodie to reſt.

To procure reſt and ſleepe.

Of Hunting.

Chap. XXI.

How that there are three ſorts of hunting.

Ollowing our purpoſed determination, we will intreat a word or two of hunting, not that wee would wiſh our farmer otherwiſe to affect the game, than by making it ſometimes his recreation, and that in the time of vacation, and ſurceaſe from his other buſineſſes, as when hee ſhould do nothing but ſleepe, or keepe holiday at home.

Now there are three ſorts of hunting, the one of fiſhes, the other of foules, and the third of foure footed beaſtes, as are the Stagge, roe Bucke, fallow Deere, wild Bore and Hare. In all theſe the Lord of the countrie farme may find occaſion to exerciſe himſelfe, but eſpecially in the hunting of the foure footed beaſtes; for fiſhing is more fit for the farmers ſeruants, as thoſe whom it beſt beſeemeth to buſie their

braines

braines on vacant and festiuall daies, with catching fish with the angle or pots made of osiers, that so they may haue any extraordinarie fare for their afternoon drinking or supper. The catching of birds is very prettie and pleasant, but yet if we will beleeue *Plato*, a practise more fitting a seruile estate than a Gouernor or Commander. The hunting of foure footed beastes, 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 slothfulnesse and contempt of labour: but rather for the better obtaining of a greater readinesse, nimblenesse, cheerefulnesse, and strength of bodie: but howsoeuer it is, the master of our countrie farme, especially if he be any great lord, may exercise himselfe sometimes, and take some sport in hunting after hee hath giuen order and direction for the doing of all his businesse, aswell in the citie, as at his champion or countrie house.

The profit of hunting foure footed beasts.

Of hunting or chasing of the Stag.

Chap. XXII.

What dogs are best for the course or hunting.

THe hunting of foure footed beastes, as the stag, wild bore, the roe bucke, and the hare, is performed principally with dogs, horses, and strength of bodie, sometimes with ropes and nets, and sometimes with toiles: but these two sorts of taking of beasts are more fit for holiday men, milke sops, and cowards, than for men of valour, which delight more in the taking of such beastes, in respect of the exercise of their bodie and pleasure, than for the filling of the bellie.

Those dogges which are fit for the chace or for hunting, are most generally but of two kinds, yet particularly of diuers. The two generall sorts of dogges, are those which are called Grey-hounds, or Hounds: Grey-hounds are those which belong to the leash, and are onely for the coursing of all sorts of wilde beastes by maine swiftnesse of foot, or by running: they doe not any thing more than their eies gouerne them vnto, being led by a naturall instinct or hatred which they beare to all sorts of wild beasts. Hounds are those which by vertue of their scents, smells, or noses do find out all manner of wild beastes, following their footsteps by a leasurely and moderate speede, not suffering the beast to rest till they haue tired him, and made themselues Lords of the the pray: all that they doe, is as it were blindfold, their eies seldome or neuer seeing the game till they come to deuoure it: and as the Grey-hound through his extreame swiftnesse and running, sheweth the greedie delight which hee taketh in the sport, without once opening his mouth or making the least signe of any noise, but being as it were dumbe and mute; so the hound taking a greater leasure, sheweth the delight and pleasure which hee taketh in the game, by his continual clamours or opening, spending his mouth in such liberall sort, that he makes the woods, valleys, and hills resound the eccho or doublings of his voice; and it is amongst hunt-men taken for a most excellent musicke: yet this crie of hounds or opening of their mouthes, is in no sort allowed to the liam-hound, so long as he draweth in the string, all which time hee must be exceeding silent, and mute like vnto the grey-hound, as well for the discouerie of the game, or footsteps whatsoeuer hee draweth after, as to hinder all preuentions that the aduersarie may seeke when hee hath a warning giuen him by such clamours, for this drawing in the string, is the most sweetest discouerie of all other, and must bee done with the greatest diligence and priuacie. Now to speake of grey-hounds, first they are of all dogs whatsoeuer the most noble and princely, strong, nimble, swift, and valient, and though of slender and verie fine proportions, yet so well knit and

Grey-hounds and Hounds.

coupled together, and ſo ſeconded with ſpirit and mettall, that they are maſter of all other dogs whatſoeuer: nay, it is moſt certain, that the perfect and true Grey-hound will euen face to face and tooth to tooth conquer the ſtrongeſt and fierceſt maſtiue whatſoeuer: they are of all dogs the foreſt bitten and leaſt amaſed with any cruelte in their enemie, whence it comes that men eſteeme them and prefer them before all other dogs for the encountring of the woolfe, and other beaſtes of his equall cruelty.

Two ſorts of Grey-hounds.

Now of theſe Grey-hounds, their bee two kinds, the long ſhag-haired, and great boned Grey-hound, and the ſmooth, ſlender and fine ſhapt Grey-hound. Now ſome will adde a third ſort which is indifferently mixt betweene both: but in as much as he is a mungrell and baſterdly bred betweene the two former, we will allow him no other place than as contained in the firſt: of theſe two ſorts of Grey-hounds, the firſt which is the ſhag-haired dog, is held moſt proper for vermine or wild beaſts which are rauenous, as the Tyger, the Leopard, Woolfe, Foxe, and ſuch like: the other which is ſmooth and more delicately proportioned, are beſt for wild beaſtes of pleaſure, as the Stag, the Bucke, the Roe, the Hare, and ſuch like. Theſe Grey-hounds are of diuers colours, as ſome white, ſome blacke, ſome fallow, ſome dun, ſome brended and ſome pied, as hauing white mixt with any of the former colours: and theſe colours haue (as touching any particular goodneſſe) no preheminence one aboue another, but are all equall. Many good aud famous dogs hauing beene of all theſe ſeuerall colours, onely the white is eſteemed the moſt beautifull and beſt for the eie, the blacke and fallow hardeſt to endure labour, and the dunne and brended beſt for potchers and night-men, who delight to haue all their pleaſures performed in darkeneſſe.

How to choſe a good Grey-hound.

Now for the choice of a good Grey-hound, there are but two principall things to be obſerued, that is to ſay, breed and ſhape, Breed, which is euer as touching his deſcent and generation: for if a dog be not wel deſcended, that is to ſay, begot by an excellent dog, or an excellent bitch, there can be little hope of his goodneſſe. Now in the breeding of Grey-hounds, there are diuerſities of opinions, for ſome gentlemen of the leaſh deſire a moſt principall bitch, though the dog be but indifferent, and ſuppoſe that ſo they ſhall haue the beſt whelps, ſuppoſing (according to an old coniecture) that a bitch is ſwifter than a dogge; but it is an erronious fancie, for the good dogge will euer beate the good bitch, and the good bitch will euer beate the bad dogge: againe it is moſt certaine, that the dogge hauing aduantage both of length, ſtrength, and courage, hee muſt conſequently haue the aduantage of ſpeed alſo. I doe not denie but that the bitch being much leſſe than the dogge, (as naturally all are) may haue ſome aduantage of nimbleneſſe, and ſo in turnes, ſlips, and wries, may get much ground which the dogge commonly looſeth: but yet notwithſtanding, when the full account is caſt, the good dogge will equall all thoſe aduantages, and wherefoeuer the courſe ſhall ſtand forth long will beat out the good bitch and make her giue ouer.

There be other gentlemen of the leaſh, which deſire a good dog, and reſpect not though the bitch be but indifferent, and this is the better choice, yet both defectiue; for where there is any imperfection at all, there nature can neuer be fully compleate.

To breed a good whelpe.

To breed then a good whelpe indeed, you muſt be ſure to haue both a perfect good dogge and a perfect good bitch, and as neere as you can make choice of that bitch which is moſt large and deepeſt cheſted, for from thence ſpringeth both ſtrength and wind. For the true ſhape of a good grey-hound, becauſe it is the very face and charracter of goodneſſe, you ſhall eſteeme that dog which hath a fine, long, leane ſnakes head, with a cleere bright eie, and wide noſtrells, a round bending necke like a mollard, with a looſe throppple, and a full falling at the ſetting on of the ſhoulders, he muſt haue a long, broad, and a ſquare beame backe, with high round fillets, and a broad ſpace, hee muſt bee deepe ſwine ſided, with hollow bended ribs, and a full breſt, he muſt haue ruſh growne limbes before, and ſickell houghes behind, a fine, round, full cats foot, with ſtrong cleyes and tough ſoles, and an euen growne long rats taile, round turning at the lower end from the leaſh ward, and hee muſt bee full ſet on betweene the buttockes, and laſtly hee muſt haue a very long, ſlender

close

close hid pizell, and a round big paire of stones. The food which is best for grey-hounds, as touching their diet, is chippings or houshold bread scalded in beefe broth or other broth that is not too salt, and after made white with milke, or else the bones of veale which are verie soft and tender, or the bones of lambe, rabits, or other scraps comming from the Farmers table. In the time of coursing, or at other times, if your grey-hound be leane or out of heart, the best meate to raise him is sheepes heads boiled wooll and all in water together with oatemeale and synage, succorie, langdebeefe, and violet leaues chopt verie small together, and so boiled to pottage, vntill the flesh fall from the bones. The best food when a dog is in diet for a course, is to make him bread of wheate-meale and oate-meale mixt together, and finely bolted and knodden with a little water, whites of egges, barme, licoras, and anyseeds, and so bakt in good houshold loaues, and giuen morning and night with new milke or pottage which are warme. If the dogge at any time grow costiue, you shall giue him tostes which are made of the same bread, or of manchets, and steept in sallet oile. Grey-hounds when they are for the course, must bee walkt forth and ayred both morning and euening exceeding earely, as before day in the morning, and verie late, as about seuen or eight of the clocke at night: and when you bring your grey-hound home at night, you shall bring him to a faire fire, and there let him beake and stretch himselfe, and doe you ticke him at the least an houre or more before you put him into his kennell. You must haue a very great and diligent care that when you course him hee bee exceeding emptie, as at least of twelue houres fasting more than for some small sop or bit or two onely to cherish or strengthen Nature. A brace of grey-hounds are enough at one time to course either Hare or Bucke withall, and two brace are sufficient to course the Stagge or Hind. Much more might bee said of the natures of grey-hounds, and the manner of ordering and dietting them for the course, but this small taste is sufficient both for the farmers vnderstanding, and to auoid tediousnesse. Now for the hounds whose natures I haue alreadie in part discribed, and which hunt in great numbers, or as it were flockes together, you shall vnderstand that they are of foure sorts, and distinguished by foure seuerall colours belonging to the foure seuerall sorts of hounds, that is to say, the white hound, the fallow or taund hound, the grey-hound, and the blacke hound.

The white are the best, for they are of quicke scent, swift, hot, and such as neuer giue ouer for any continuance of heate, or breaking off, because of the feeting of the horsemen, or the cries and noises of men, keeping the turnes and crossing better than any 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 cold. Those which are altogether white are the best, and likewise those which are red spotted. The other which are blacke and dirtie, gray spotted, drawing neere vnto a changeable colour, are but of small value, and whereof there are some subiect to haue fat and tender feet.

The bay or fallow coloured dogs.

The baie coloured ones haue the second place for goodnesse, and are of great courage, ventring far, and of a quicke scent, 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 well, neither yet the treadings of the horsemen, and yet notwithstanding they bee more swift and hot, and feare neither cold nor water: they runne surely, and with great boldnesse, commonly louing the Stagge more than any other beast, but they make no account of hares. It is true, that they be more head-strong and hard to reclaime than the white, and put men to more paine and trauell about the same. The best of the fallow sort of dogges, are those which are of 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 manner those which are all fallow: but such as incline to a light yellow colour, being graie or blacke spotted, are nothing worth: such as are trussed vp and haue dewclawes, are good to make bloud-hounds. The white and baie dogs are not fit for any but Kings, Princes, and great Lords, and then not

for gentelmen, becauſe they courſe only the hart, and not all ſorts of game.

The gray dogs. The graie dogs do run well at all ſorts of game, that a man would haue them to hunt, but they are not ſo ſwift nor luſtie as the others, eſpecially ſuch 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 cold, running with great courage, and neuer giuing ouer the game till they haue killed: but indeed they auoid and ſhun heat, the footing of horſes, and the noiſe of men, neither do they delight in the hunting of any beaſtes that are giuen to wiles and croſſe windings: but in recompence hereof, it is poſſible that you may ſee them to ouerrun the moſt ſwift and beſt dogs, eſpecially after beaſtes that vſe to run out right.

Blacke dogs. The blacke dogs are ſtrong bodied, but they haue low and ſhort legs, in like manner they bee nothing ſwift, howſoeuer they may bee of a quicke ſcent, fearing neither cold nor waters, and they doe delight moſt in courſing the rammiſh and ſtrong ſcented beaſtes, as wild Bores, Foxes, and ſuch like, becauſe they neither haue mind, nor yet ſwiftneſſe to courſe and take the beaſtes that bee ſwift in running. But whereas it is commonly giuen out and reported, that their are good dogs of euerie ſhape, it may bee ſo brought to paſſe, as that the hare may not make much for the arguing of the goodneſſe of the dogge, and that there are found of all colours good and faire dogges: for this cauſe it is both meete and requiſite that a dogge (of what haire or colour ſoeuer hee be) to the end hee may be faire and good, haue theſe notes and markes following: his head muſt be reaſonably thicke, rather long than flat noſed, his noſtrells very wide and great, his eares large, and of a meane thickeneſſe, his backe crooked in compaſſe wiſe, his loynes great and thicke, his lippes thicke and large, his thigh round and truſſed, his houghs ſtraight and well ſet together, his taile thicke neere vnto his backe, and the reſt of it ſmall and leane euen to the end, the haire vnder his bellie ſtiffe, his legs great, the ſole of his foot drie, and ſhaped like vnto the foot of a Fox, his nailes thicke, his hinder parts as high as his fore parts. The male kind muſt be ſhort and crooked: but the bitch or female long.

The markes of a good hunting dog.

The reaſon of theſe markes of a good hunting dog. The ſignification and meaning of theſe ſignes is ſuch: his wide noſtrels do argue his quicke ſcent: his vaulted backe and ſtraight hams do argue his ſwiftnes: his taile thicke aboue, and ſlender downe to the end, doth ſignifie that he hath a ſtrong back, and wind at will: the ſtiffeneſſe of his haire vnderneath his bellie doth ſhew that he is willing & painfull, fearing neither water nor cold: his thick leg, fox foot, and thick nailes, doth ſignifie that he hath no fat or gouty foot, and that he hath ſtrong limbs, to run long without griefe or annoiance.

But for as much 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 wel proportioned limbs, hauing great and large ſides and flanks: and to procure her to be limed with a faire dog, hauing the markes that we haue ſpoken of before, and that at ſuch time onely (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 run mad, and beſides, there will be of them moe dogs than bitches. When the bitch is with whelpe, and beginneth to haue a bagging bellie, ſhe may not be ſet to courſe, leaſt her young ones ſhould bee 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 wearifome, aud giuen to loath all meat. When ſhe hath whelped (the fitteſt time for which is in March, Aprill, and May, rather than either in Winter, or in the time of great heat) and that the whelpes begin to ſee, they muſt bee 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 meats, 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. Hounds would bee fed all together in one kennell, meete and conuenient for them, to the end they may know and heare one another: becauſe that thoſe which are fed toge-

together, they become the better acquainted, and agree better in hunting than 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 barley, 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 onely, it would make them scoure too much: if of pure wheat, it would bind too much in their bellies, and therefore the one mixt with the other. There must bee giuen them some flesh meate in Winter, but especially vnto those that are leane, and hunt the stag: but to those that hunt the hare you must neuer giue any, least they fleshing themselues vpon the greater game, they make light account of hares, which thrust themselues commonly into the middest of tame cattell, to shift off the dogges by that meanes, who vpon such occasion might leaue off the hare, and fall to course the tame cattell: but the dogs which hunt the hart would neuer do it, because the stag is of a more full and strong scent than the hare, as also because their flesh is more daintie and delicate than any other. The best flesh meat that can bee giuen them, and which doth strengthen them most, is horse-flesh, asse-flesh, and mules-flesh: but as for oxen, kine, and other such like, their flesh is to them of too eager and sharpe a substance. Their flesh meate must first haue their 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, goates 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.

Flesh-meate.

Pottage.

As for your raw flesh meate (which amongst huntsmen it called kee) if you do not eate it all at a meale, you shall preserue it in some cleare running streame by suffering it to lie hid in the water till your next occasion to vse it. Oates ground hulls and all, and so scalded in hot water, is a very good mange or meate for hounds, and so is also your mill-dust scalded in the same manner. But if your hounds happen to fall weake, or sicke, or bee ouer hunted, then you shall take the bagges and intrailes of sheepe, having turned the filth and excraments forth, and washt the bagges well, and also the sheepes pluckes and boyle them in faire water with a good quanti- of oatemeale, till the pottage bee thicke, and so giue it reasonably warme to the hounds: this is a soueraigne good meate, and it is very comfortable for weake and sicke dogs, of what kind soeuer they bee, and bring them into lust and strength sodenly.

Their kennell must be made in some place standing vpon the East, through the midst whereof doth run 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, mild, and courteous, louing dogs of his naturall instinct, and such a one as will make them cleane, and dresse them carefully with wisps of straw and little brushes: being readie to giue them some prettie dainties to eate, and to draw them alongst the greene corne and meadowes, as wel to giue them appetite to their meat, as also to learne them to run, and to cause them to passe through the the flockes of sheepe and other tame cattell, that so they may bee 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 of large quantitie, with ten good handfulls of wild cresses, wild marierome, sage, rosemarie, rue, patience, and six handfulls of salt, all being well boiled together to the consumption of the herbs.

Wormes.

To driue out wormes, you must soke perrosin made into pouder, aloes poudred, vnquencht lime, and liue brimstone made likewise into pouder, euen all these in one oxe gall, and with this liquor 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

leaues of aſh tree incontinently: or elſe a glaſſe full of the decoction of rue, white mullein, mints and broome, whereunto muſt be added the weight of a French crown 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 forthwith be caſt into a veſſell of ſea water nine times one after another: or for lacke of ſea water, into common water wherein hath bin diſſolued foure buſhels of ſalt; & 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 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 goe about to cure ſuch madneſſe: the ſignes of ſuch madneſſe are the drawing vp of 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.

Gaules. Tetters. Itch. Scab.

Againſt the ſcabs, tetters, itch, and gauls of dogs, you muſt take three pounds of the oile of nuts, one pound and a halfe of the oile of oile of lees, two pounds of old ſwines greaſe, three pounds of common honie, a pound and a halfe of vineger, and make them all boile together, to the conſumption of the halfe of the vineger, putting thereto afterward of perroſin and common pitch, of each two pounds and a halfe, of new waxe halfe a pound, melt altogether, caſting in thereto afterward the pouders 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.

Wormes.

For the wormes in dogs, you muſt make a drinke of the decoction wherein haue beene boiled wormewood, ſouthrenwood, and the ſhauings of hartſ-horne: or elſe cauſe them to ſwallow downe pils made of hartſ-horne, brimſtone, aloes, and the iuice of wormewood.

When the dogs are tired, rub their feet with this reſtrictiue, made of the yelkes of egs, the iuice of pomegranets and ſoot finely poudred, all of it being wel mingled together, and left to ſettle one whole day.

Hurts giuen by wild bores.

Dogs are often hurt of wild bores in many parts of their bodies, and then according to the places where they are hurt, they muſt bee ordered and looked to with dreſſing of their wounds. If the wound be in his bellie, and that the guts come forth vnhurt, you muſt firſt put them in againe, and then afterward put into the bellie in the place where the hole is, a ſlice of lard, and ſo ſow vp the skin aboue: but the thred muſt be knit of a knot and made faſt at euerie ſtitch of the needle, and withall cut off the thred at euery ſtitch ſo faſtened: as much is to bee performed in the wounds that ſhall be made in other places, alwaies obſeruing to put ſome lard into them.

Wounds.

For wounds which dogs ſhall receiue, the iuice of the leaues of red coleworts is a very ſoueraine 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.

Againſt the canker breeding in the eares of dogs, taking a dramme of Sope, of oile of Tartar, Salarmoniacke, Brimſtone, and Verdegreaſe, incorporated all together with white vineger and ſtrong water, and rub the cankered eares therewith nine mornings.

Taking of cold.

If the dogs after they haue run in froſt after raine, and ſuch other bad weather, or ſwum the riuers & 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 & rocks dogs come to haue the skin ſtriken off of their feet: for the remedying whereof, it will bee good firſt to waſh their feet with water and ſalt, and after to make a cataplaſme of the yelkes of egs beaten with

ſtrong

ſtrong vineger,and the iuice of the herbe called Piloſella.

If in courſing they ſhall haue taken any thruſhes vpon any part of their bodies, with the 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 meliſote 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. *Knocks or thruſhes.*

To cauſe dogs to piſſe, make them drinke the decoction of mallowes,hollihocks, the roots of fennell and brambles made with white wine. *Againſt the difficultie of making water.*

If dogs haue gotten any diſeaſe in their eares, drop therein veriuice mingled with the water of cheruile, continuing to do ſo three or foure mornings. *The diſeaſe of the eares.*

You ſhall find a larger diſcourſe of the nature, conditions,differences and diſeaſes of dogs in the firſt Booke,in the chapter of the kennell.

Yet becauſe there is one other ſort of hunting dogs, which although they are for birds and not for wild beaſts, yet in their kinds they are as noble and as generous as any other dogs whatſoeuer,and as much in vſe amongſt great perſons,and thēſe dogs are called field or land ſpannels,of which ſith before no Auther hath fully intreated: I will here giue you a little touch or taſt of the nature,diſpoſition,and manner of gouening them. To ſpeake then of the land ſpannell,you ſhall vnderſtand, that he is be nature very gentle, courteous, and louing to the man more than any other ſort of dogs whatſoeuer: they alſo naturally loue to hunt the wing of any bird whatſoeuer, eſpecially partridge, pheaſant, quaile, raile, poots, and ſuch like: when you make choice of any ſpannell, you ſhall chuſe him by his ſhape, beautie, mettall, and cunning hunting, his ſhape is deſcerned in the good compoſition of his bodie, as when he hath a round thicke head,a ſhort noſe, a long,well compaſt and hairie eare, broad and ſydelips, a cleere red eie, a thicke neck,broad breaſt, ſhort and well knit ioints, round feete, ſtrong cleys, high dewcleyd, good round ribs, a gaunt bellie, a ſhort broad backe, a thicke buſhie and long haired taile, and all his bodie generally long and well haired: his beautie is diſcerned in his colour, of which the motleys or pide are the beſt, whether they bee blacke and white, red and white, or liuer hued and white; for to be all of one entire colour, as all white,or all bladke, or all red, or all liuer hued without any other ſpot,is not ſo comely in the field,although the dogs notwithſtanding may be of excellent cunning: his mettall is diſcerned in his free and vntired labourſome raunging, beating a field ouer and ouer, and not leauing a furrow vntrodden or vnſearcht where any haunt is likely to bee hidden, and when hee doth it moſt coragiouſly and ſwiftly, with a wanton playing taile, and a buſie labouring noſe,neither deſiſting or ſhewing leſſe delight in his labour at night than he did in the morning; and his cunning hunting is diſcerned by his caſting about heedfully, and running into the wind of the pray he ſeeketh, by his ſtilneſſe and quietneſſe in hunting without babling or barking, but when hee is vpon an aſſured and certaine haunt, by the manner of his raunging, as when hee compaſſeth a whole field about at the firſt,and after leſneth and leſneth that circumference till he haue trodden euery path, and brought the whole circuit to one point; and by his more temperate and leaſurely hunting,when he comes to the firſt ſcent of the game, ſticking vpon it,and pricking it out by degrees, not opening or queſting by any meanes, but whimpring and whining to giue his maſter a warning of what he ſcenteth,and to prepare himſelfe and his hauke for the pleaſure hee ſeeketh, and when he is aſſured of his game,then to queſt out loudly and freely. Now it is to be vnderſtood, that it is hard to haue one ſpannell to be abſolute cunning in all the qualities of hunting,as to be an excellent raunger,an excellent finder, and an excellent retainer, becauſe one qualitie is almoſt in nature cleere contrarie to another; for he that is a good and free raunger can neuer be confined or bound into one particular ſmall compaſſe, but will out of his owne mettall breake forth into much larger compaſſe, and ſo both loſe time in hunting, and alſo giue the game more leaſure to get breath, or fleit away priuatly from the place where it was markt,and ſo deceiue the hauke of her expectation, and in like ſort a good retainer which will ſticke vpon the place whereto he is oppointed

and

and will beat it ouer and ouer many times, euen as it were by inchmeale, neuer leauing till he haue ſprung the game he ſeeketh, can neuer bee eſteemed for a good raunger, becauſe the leaſure he taketh will not giue him leaue to rid much ground, and ſo likewiſe of all other ſeuerall qualities: therefore euery man muſt eſteeme his ſpannyel for the one good qualitie he holdeth, and cannot for diuers, and ſo mixing his kennell of good raungers, good noſes, and retainers, hee ſhall bee ſure to attaine to the vttermoſt height of his pleaſure he wiſheth. There bee ſome ſpannels which delight in the plaine and open field, and thoſe are the beſt for the partridge, quaile, or raile: there be othe others which delight in woods, hedges, buſhes, and couerts, and thoſe are beſt for the pheaſant and moore poot, and theſe are commonly the beſt retainers, and the former the beſt raungers.

There is alſo another ſort of land ſpannyels, which are called Setters, and they diſfor nothing from the former, but in inſtruction or obedience; for theſe muſt neither hunt, raunge, nor retaine more or leſſe than as the maſter appointeth, taking the whole limits of whatſoeuer they doe from the eie or hand of their inſtructer: they muſt neuer at any time queſt what occaſion ſoeuer ſhall happen, but as being dogs without voices, ſo they muſt hunt cloſe and mute, and when they come vpon the haunt of that they hunt: they ſhall ſodainly ſtop and fall downe vpon their bellies, and ſo leaſurely creepe by degrees to the game, till they come within two or three yards thereof, or ſo neere that they cannot preſſe neerer without daunger of retriuing, then ſhall your Setter ſticke, and by no perſuaſion go further, till your ſelfe come in and vſe your pleaſure. Now the dogs which are to be made for this pleaſure, ſhould be the moſt principall beſt and luſtieſt ſpannyell you can get, both of good ſcent and good courage, yet young, and as little as may bee made acquanted with much hunting: the way to traine him to his knowledge, is by all louing meanes, or elſe awfull where loue taketh not effect, as by faſting, threatnings, and ſome ſtripes to make him both feare and loue you far aboue all other perſons, and to that end you ſhall ſuffer him to receiue no good thing from any man but your ſelfe onely: when you haue made him thus enamoured of you, you ſhall (as men teach hounds to couch with bits and blowes) teach him to couch downe cloſe vpon his bellie when you pleaſe, by ſaying *Lie cloſe*, or ſuch like word: for you are to vnderſtand, that in this excerciſe, the principall thing which is to be reſpected, is conſtancie of words, that is by no meanes to vſe many words, or change of words, for that breeds a confuſion in the dogs braines, and makes them that they cannot vnderſtand you, and where vnderſtanding is taken away, there neuer looke to haue your will performed: therefore you ſhall neuer vſe but one word for incouragement or cherriſhing, as *hay good dog*, or ſuch like, but one word for aduice or threatning, as *Be wiſe*, or ſuch like, one word for performance of duetie, as *Lie cloſe*, and one word for the bettering of his duetie, as *Goe neere*, and ſuch like, and ſo forth for the performance of any other thing whatſoeuer. Yet I do not bind you to theſe words only & none other, but to inuent words, ſo they intend to this ſence, as you pleaſe, and hauing made choice of your words, not by any meanes to alter or change them, but to vſe your dog conſtantly to them that he may truely vnderſtand when he is cheriſht, when chid, when taught, when forewarned or aduiſed: for the whole art of making theſe ſetting dogs, conſiſteth in theſe words onely, for if one word being vſed, that word knowne, any man may hunt with the dog as well as his maſter, and ſo euery knaue greedie to ſteale him: but hauing libertie to make choice of your owne words, except you teach them, a man ſhall be neuer the better for hauing of the dog. To proceed then to our purpoſe, aſſoone as you haue taught your dog to lie cloſe vpon his bellie, you ſhall then make him creepe vnto you vpon his bellie, by leaſurable and ſlow degrees, ſaying vnto him go neere go neere or ſuch like, and euer obſeruing in that as in all things elſe, to cherriſh and reward him when he doth well, and to threaten or correct him when he doth amiſſe: and in this matter of correction, you muſt alſo be certaine, as in your words, and not vſe diuers corrections, but one, as either to bite him or nip him by the eare root, or other ſencible part, where you may paine him, but not hurt or lame him.

When

When your dogge will couch and creepe vpon his bellie, to make him the better delight in doing it, you shall lay a piece of bread three or foure yards before him, and then make him couch downe and creepe close vpon his bellie vnto it, and being come with his nose iust ouer it, not to take it till you giue him leaue: vvhich obedience when he hath shewed, you may then giue him leaue to eat it, and cherish him. When the dogge is verie perfect in this lesson, which is but only to bring him to obedience, and to the true manner of carriage and concealement of his bodie, you shall then take him abroad into the field, and giue him leaue to raunge, yet in such manner, that he goe not an ynch further than you giue him leaue, but with the least hemme or threatening of your voice to be readie to come euen to your foot, although he be neuer so earnest vpon his game: the contrarie vvhereof, vvhen at any time hee sheweth, you shall not forget, but in the verie selfe-same instant beat and correct him verie soundly. Now when you haue brought him vnto that obedience, that he will raunge according to your pleasure either in large or little compasse, you shall then take care, that not at any time, or vpon any occasion whatsoeuer, that he dare to quest or open his mouth, but that he hunt so silent and mute as is possible: and if at any time hee offer to quest, though neuer so little, presently you must not forbeare, but correct him, till he come to an vnderstanding of your vvill therein: and when he vnderstandeth your vvill, yet notwithstanding doth quest, you shall not onely beat him, but lead him home, and tie him vp from meat till the next day, not ceasing to hunger-starue him, till hee doe performe your pleasure: vvhich done, then reward him liberally both with good meat and with plentie: vvhich the dogge once finding, hee will both for feare, loue, and the reliefe of his owne bellie, labour his vtmost to please you. Now as soone as you find your dogge is brought both vnto obedience and mute hunting, you shall then, as soone as you find him busie vpon any haunt, which you shall note by the businesse of his taile, and sticking long in one place, with a kind of secret whining, to shew that he is neere to that which he desireth: forthwith you shall draw neere vnto him, and giue him words both of encouragement and aduice, saying, *Hay good dog, goe neere*, or such like: and if you find him too busie or hastie, you shall threaten and bid him be wise, and such like, till you see him lie close vpon his bellie, and that he dare not goe any further: then you shall fetch a large compasse round about the place where the dog lieth, and cast your eie diligently into the couert to see whether you can find out the game, which as soone as you haue done, if you find that the dog hath set too far off, that is twentie or thirtie yards short, as timerousnesse and fearefulnesse will make a young dogge many times doe: then you shall incourage him and make him goe somewhat neerer, but if hee set within the compasse of three or foure yards, then you shall make him lie still, vntill such time as either your hauke bee at her pitch, or your nets bee spread, and then your selfe shall goe or ride into the couert and spring them, and the game being taken, you shall not forget to reward your dogge. Now if during this maine action of setting, which is after the dog hath first stucke and giuen you warning of the game, if hee shall vpon any occasion whatsoeuer, either by haste, negligence, or the frenzie of his owne desire, or otherwise by a too open carriage of his bodie doe spring the game before you bee readie for it, you shall instantly correct him soundly, and also tie him vp that night without any meate, keeping him so fearefully in awe of the game, that if at any time he shall, either by too hastie raunging, or anie other vnexpected chaunce, happen vpon the game vnawares, yet shall his feare so gouerne him, that hee shall vpon the verie instant sight of his error not onely stoppe suddainely, but also cast himselfe toppe ouer tayle backward, rather than by pressing forward an ynch endanger the springing of the game. Which vvhen at any time you perceiue him to doe, you shall then immediately cherish him, notwithstanding the losse of your game at that instant, in as much as therein hee shewed a vvillingnesse to haue done the contrarie vpon any occasion, if mischance had not beene his hinderance.

How to teach a Spaniell to hunt well.

Now

Now for the food vvhich is beſt for ſpanyels, it is that vvhich is before preſcribed for greyhounds, as chippings, bones, and broken cruſts of bread, ſcalded in vvater and milke, or the heads, plucks, and entrailes of ſheepe, boyled with oatmeale: yet the ſetting ſpanyell vvould for the moſt part be fedde from the trencher vvith ſcraps of meat, bones, bread, and ſuch like: for by reaſon that he muſt be kept much faſting, ſince he cannot hunt but vvhen he is exceeding emptie, it is verie fit that he be kept vvith as good and as nouriſhing meat as can be gotten. Now to conclude this diſcourſe of hunting dogges, you ſhall vnderſtand, that there is one other ſort of ſpanyels, and they be called vvater-ſpanyels, becauſe they delight onely naturally in the vvater, and are imployed for the hunting of Duckes, Mallards, and all ſorts of vvater-fowle: they are much larger and bigger bodied than the land-ſpanyels are, and a great deale more ſtrong and Lyon-like made: their haire is alſo verie long, rough, and thicke curled, vvhich ſheweth their hard conſtitution and abilitie to endure the vvater, albeit the vveather be neuer ſo fiercely and bitterly cold. They receiue all their vertues from nature, and not from inſtruction: and therefore to make any large diſcourſe of them, vvere friuolous: onely, for as much as they are verie neceſſarie to attend the fowler, for the fetching of his fowle out of the vvater, vvhen they are either lymed or ſtrucken vvith the piece, it is meet that they be brought to great obedience, that is to ſay, to fetch, carrie, runne, couch, and creepe, vvhenſoeuer a man pleaſeth, leaſt otherwiſe, out of the franticknesſe of their owne natures, they ſcarre away the game vvhileſt the fowler is the moſt buſily imployed. Theſe dogges are leſſe tender than any of the other, and therefore any meat vvill ſerue them: neither would they be vſed to any niceneſſe, becauſe their moſt imployment is in the Winter ſeaſon. And thus much touching hunting dogges and their gouernments.

Chap. XXIII.

How young hounds are to be trained vp and made fit for the game.

IT is not ynough to haue a number of good and faire dogges, vvell marked vvith markes, declaring both the ſaid qualities, for they muſt ouer and aboue be taught and trained vp for the game. Wherefore the huntſman muſt firſt bring them to vnderſtand the ſound of the horne, to ſwim and haunt the vvater, that ſo they may be the more readie and forward to purſue the beaſt, if ſo be that he ſhould ſeeke to ſaue himſelfe by any running riuer or ſtanding lake. Hee muſt lead them alſo once a weeke into the fields, but not before the age of ſixteene or eighteene moneths, for before ſuch age they are not throughly growne and well knit in all their members. But eſpecially hee muſt well aduiſe to what kind of game he is purpoſed to vſe them, as vvhether to courſe the Hart, or the Hinde, the wild Bore, or the Hare: for looke vvhat beaſts you firſt runne them at, thoſe will they beſt remember alwaies, eſpecially if there be care had to looke any thing well vnto them.

You muſt not courſe with them in the morning, if poſſibly you can auoid it: for hauing beene accuſtomed to the cooleneſſe of the morning, and comming afterward to the height of the day, and feeling therein the heat of the Sunne, they will not runne any more.

You muſt not put on young dogges the firſt time within a toile, becauſe the beaſt running altogether round, and therefore alwaies in the ſight of the dogges, ſo when afterward they ſhould be brought to runne out of the toile, and by that meanes become

come cast any great distance behind the beast, it would be the cause of their giuing ouer and forsaking of the game.

It shall be for the better (to the end they may be the better trained and fitted) to put all the young ones together with foure or fiue old ones, at such time as you purpose to hunt with them. Neither shall you compell your young hounds to make more hast than their owne natures leads them vnto, but encouraging them to trust to their owne noses, let them take what leysure they please, and picke out the sent of themselues, that comming truely to vnderstand what they hunt, they may be more perfect and readie in the same: vvhereas on the contrarie part, being compelled to hunt vp close with the older and swifter hounds, they hunt (as it were) by rote, catching the sent here and there, and goe away with it both vncertainely and ignorantly, and so seldome or neuer prooue staunche or good hounds. It is also verie meete to enter all young hounds at the Hare first, because it is the sweetest and coolest of all sents vvhatsoeuer, and the hound which will hunt it, must necessarily hunt any other hoter sent vvith much more violence: for it is a rule, That vvhosoeuer can doe the hardest things, must forcibly doe things easier with lesse difficultie. Therefore first enter your hound (as before is said) at the Hare, least finding a sweetnesse and easinesse of hunting in the hoter sents, hee neuer after lay his nose to the cooler.

Chap. XXIIII.

How that the Hart and the place where he haunteth and vseth to lie, would be knowne before yee course or hunt him.

Hunting is for great states.

Kings, Princes, and great Lords (to whom, and no others, belongeth the coursing of the Hart) haue not vsed to course the Hart, before they haue learned of their hunts-man vvhat manner of Hart he is, young or old, and whether he be a faire and great one, and such a one as deserueth to be coursed, and then afterward where his haunt and lodging is.

The marks of distinction betwixt Hart and Hart, as also of their age.

The hunts-man shall know the age and faireness of the Hart in respect of others, by iudgement of the forme of his foot, the largenesse of his tines, his dung, gate, beatings, breakings, and rubbings.

The sole of the foot being great and large, the heele also being thicke and large, the little cleft which is in the middest of the foot, being large and open, a large legge, a thick bone, being also short, but nothing sharpe, and the tippes of his clawes round and thicke, are signes of an old Hart. The elder Harts in their gate doe neuer ouer-reach the former foot with the hinder, for they tread short of it at the least foure fingers: but it is not so in young Harts, for they in their gate doe ouer-reach and set the hinder foot more forward than the fore-foot, after the manner of the ambling Mule. The Hinde hath commonly a long foot, narrow, and hollow, with small cutting bones. *The Hinde.*

The excrement and dung of Harts is not alike at all times: for some is printed, othersome vvrythen round, and othersome flat and broad: 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 stocke. In Iune and Iuly they make their dung in thicke vvreaths that are verie soft: and yet there are some of them that make it flat and broad, vntill mid Iune: And from mid Iuly vnto the end of August, their dung is printed, grosse, long, and knottie, vvell hammered, annoynted, or gilded: and these are the markes to know Harts of tenne tynes from the old ones.

The

The cariages or largeneſſe of his tines.

The cariages of a Hart are ſaid to be, when a Hart paſſing through a thicke and twiggie vvood, hitteth with his head againſt the boughes of trees: for ſo it commeth to paſſe, that if the Hart be tall and large, the cariages will alſo be ſomewhat large. Now the iudgement vvhich the huntſ-man can gather of the carriages, cannot be but from after Iuly vntill March: for the other foure moneths, that is to ſay, March, Aprill, May, and Iune, the Harts caſt their heads, that is to ſay, their hornes. True it is, that they begin to put forth new hornes by the moneth of Aprill, and as the Sunne mounteth higher, and graſſe groweth higher alſo, and harder, ſo their hornes grow and wax greater: ſo that by the middeſt of Iune their heads will be fully ſet and garniſhed with all that which they are to beare all the yeare long, prouided that they be in a good thriuing countrey, and come not by any hurt or annoyance. You may likewiſe iudge of their age by the tynes of their hornes: for as for the firſt yeare, they haue no hornes: the ſecond yeare they haue their firſt hornes, which are called daggers: the third yeare, foure, ſixe, or eight tynes: the fourth yeare, eight or tenne tynes: the fifth yeare, tenne or twelue: the ſixth, twelue, foureteene, or ſixteene: and in the ſeuenth, their hornes put forth 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 forth. Yet notwithſtanding, the old Harts will alwaies be knowne, by hauing the whole root of their hornes large and groſſe, the bodie or ſtock very bright, and ſet with pearles, and ſtrait and large heads, rather open than turned compaſſe-wiſe.

The time when 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 huntſ-man ſhal be able to iudge whether the Hart be great and long, and ſo likewiſe, if he will ſtand long in courſe before the dogges: for the Harts which haue long paces, hold out longer in courſing, than 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 likewiſe of what bulke or bigneſſe his bodie is, by marking where he entreth into the thicke amongſt brakes and ſmall wood, which he ſhall haue let paſſe betwixt his legges: for looke at what height he hath beaten them downe with his belly, ſo high muſt you iudge him to be on his legges. The groſſeneſſe of his bodie is perceiued by the two ſides of the way which he hath touched with his bodie: for he will haue broken off the drie boughes and branches on both ſides, ſo that thereby you may gather the groſſeneſſe and greatneſſe of his bodie.

The rubbing of the Hart.

As concerning the rubbings 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: vvherefore, vvhen the huntſman ſhall perceiue the branches of the tree to be broken downe, then hee ſhall be able to gather the height and largeneſſe of the Harts head: howbeit, this is but a darke and obſcure marke.

The knowledge of the Hart his priuie haunt and place of retraict.

Thus and by theſe meanes it may come to paſſe, that the huntſ-man may collect and gather the age and largeneſſe of the Hart, and yet notwithſtanding remaine as ignorant as euer he was of the place where he lyeth, and from where he may find him in his ſecret haunt and priuie by-walkes. And therefore to be aſſured throughly, it behooueth him to haue ſome one or other verie good bloud-hound, hauing a verie quicke and exquiſite ſent, that ſo he may the more eaſily find out and follow the foot of the Hart: beſides which meanes, it muſt be prouided, that the huntſ-man 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 yeare; for Harts doe change their vvalkes and feeding euerie moneth, according as the Sunne mounteth and aſcendeth: for which cauſe, in Nouember you muſt looke to find the Harts amongſt furze, briers, or heath, the crops and 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 ſhield of the vvood againſt cold vvinds, ſnow, and the noyſomeneſſe of froſts following raine. In Ianuarie they draw neere the corners of the forreſts, and ſeeke reliefe amongſt the greene corne-fields, 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

The Hart hath a ſeueral haunt euerie moneth.

wise for all Aprill and May. In Iune and Iuly, they applie the cut-woods and corne, at which time they are in their prime, and fullest fatted: then also they seeke after water, because of the great heat which doth alter and change them, and drinke vp the dew and moistnesse of the wood, which then beginneth to wax hard. In September and October, they forsake the bushes and go to rut, and then they keepe no certaine place, nor manner of feeding, because they range after the Hindes, and follow their waies and steps, carrying their noses close by the ground to take the scent of them, nothing regarding or carefull to find out by the wind, if there bee any secretly laied to do them harme: as thus also they passe and spend 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 Hind) and next principally the great red mushruins, which helpeth to bring them to the pissing of their tallow, for which causes, they are very easily killed at such times, if the venison were good.

The rut of the Hart.

Thus the hunts-man may haue a generall notion of the haunt of the Hart, and so he shall not seeke in any other places, then where hee ordinarily maketh his abode. And now when by the meanes aforesaid, he is sure of the place, it remaineth onely that he learne his den or the place of his particular resort: and for the diligent finding out of the same, he must go earely to the place, which he knoweth to be the generall haunt of Harts for the present time and houre, as is before declared: and he shall lead with him his bloud-hound that is not giuen to open, to foot him withall, hauing first wet his nostrels with good vineger, that so he may haue the better scent. He 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 hee may make vpon such things as hee meeteth withall in his way: howbeit the hunts-man in this case must bee ruled according to the variablenesse of the place where hee maketh search, for it is one craft and sleight to find the lodging of the Hart amongst the vnderwood, another amongst the corne fields, and a third kind of skill to find him out amongst the high woods, and they are better learned by practise in hunting and experience, than by instructions deliuered in writing: and to the end I may not be too tedious, I will say no more of this matter.

The meanes of finding out the particular place and lodging of the Hart.

Chap. XXV.

How the Hart must be hunted.

The report of the hunts-man vnto the king.

THe hunts-man after deligent search, hauing gotten as well the fairenesse and largenesse of the Hart, as also the lodging, shall come and make report vnto the King, or vnto his Lord (for we haue said before that the hunting of the Hart belongeth vnto Kings, Princes, and great states) of his indeauour, representing vnto him the dung of the Hart which he shall haue marked, making rehearsall withall of the markes and notes of the Hart which hee hath seene: and then his Lord may make choice of and appoint the day and houre, for the hunting of the hart in the place which hath bin foretold by the hunts-man.

Three sorts of dogs, as bloud-hounds, coursers, and for easements.

The mute dog is he which openeth, not but followeth the trace of the Hart.

The day appointed, the horsemen must bee readie to bee gone earely in the morning, hauing with their guid and dogs (as well their bloud-hounds 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 chace before) as also whatsoeuer other their necessarie furniture. And when they are come to the place, they shall make diligent search to find out where the Hart is lodged, and that both by their bloud-hound that will not open, as also by other meanes that they may deuise and inuent before they make choice of any

ſtanding for their dogges, either courſers, or of eaſement. When they haue caſt about the couert, and found the layre of the Deere, they ſhall take vp the Lyam hound, and firſt place the Hewed round about that ſide of the vvood, out of which they would by no meanes haue the Deere to breake through or paſſe. This Hewed is a certaine companie of men coaſting that ſide of the couert about, and making continuall noyſes and clamors, whereby they may affright the Deere from daring to attempt to come neere that coaſt. Then on that ſide through which they would haue the Deere to paſſe, and where the courſe ſhall be made, there they ſhall in ſenet ſtands, made in the trees, twentie paces vvithin the vvood, place the Bowes, vvhich, as the Deere ſhall paſſe by, may ſhoot according to their skils and fortunes. And this coaſt ſhall be kept with all the ſecretneſſe and priuacie that may be: and great regard ſhall be had of taking the vvind, leaſt the Deere find offence as he is hunted. When the Bowes are placed, then on the next champion ground, and as neere the couert as you can conueniently, you ſhall place your Teaſers, that is, the firſt brace of greyhounds for the courſe, vvhich ſhould be the lighteſt, nimbleſt, and ſwifteſt dogges you haue, that putting the Stagge to the vtmoſt of his ſpeed at firſt, he may be the leſſe able to endure his courſe foorth. Then a quarter of a myle before them, or more, according to the quantitie of ground, you ſhall place your Reſet, vvhich vvould be a brace of greyhounds ſomewhat ſtronger than the former, vvhich comming in more freſh, may pinch ſorer, and make the Deere in more deſpaire of ſafetie. Laſtly, a quarter of a myle before them, you ſhall place your Backſet, vvhich vvould be two of the ſtrongeſt and foreſt biting greyhounds you can get, vvho taking aduantage of the Stagges wearineſſe, and comming to pinch, may there hold him, vvithout ſuffering him to runne further. When you haue thus placed your courſe, you ſhall then take your hunting hounds, and vncoupling them, caſt them off into the couert, encouraging them both with hornes and voices, till they haue the Deere on foot, and ſo hunt him, till you haue brought him to take his end at the Bowes, or in the courſe. But if you make no vſe either of Bowes or Greyhounds, but onely intend to hunt the Stagge at force with hounds onely, then as ſoone as you haue caſt off your hounds, and got the Stagge on foot, you ſhall by all the diligent meanes you can, get ſight of him ſo ſoone as is poſſible, and vpon his view take ſuch ſpeciall and true knowledge of him, that vvhenſoeuer you ſhall croſſe him, you may know him from anie other Deere vvhatſoeuer: And then you ſhall giue good heede vnto his manner of hunting, and vnto the ſleights vvhich hee vſeth in the chaſe; of all vvhich vvee ſhall ſpeake ſeuerally hereafter. And in caſe your hounds may be ouer-haled and vvearied by the long ſtanding of the Stagge, it ſhall not bee amiſſe to haue hounds of eaſement in ſome conuenient place, vvhich you may caſt off in the middeſt of the day to relieue the former, and make the chaſe or toyle much ſhorter.

How to place the greyhounds for Teaſers, Reſet, & Backſet.

Directions how to hunt the Deere with hounds onely.

The Hart being once perceiued by the horſemen, or winded by the bloud-hound, they muſt place their dogges of eaſement at three or foure ſeuerall ſtands, and certaine places, to the end that they may eaſe the other dogges 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 dogges of eaſement ſhall bee ſo ſet in companies, that if the firſt faile and giue ouer the chaſe, yet the later may be the more ſtrong, able, and fierce kind of dogge, following the chaſe, not coldly, a farre off, and behind, as the others, but leading the way before all the reſt, and that with great ſtoutneſſe and courage.

Dogges of eaſement are ſuch as are reſted to runne when others are wearie.

The placing of the dogges of eaſement.

The dogges of eaſement being placed in ſtandings moſt conuenient, the courſing dogges muſt be vncoupled for to runne; regard being had according to the place where the Hart was ſeene.

The horſemen tending vpon the companie of dogges, ſhall ſecond the courſing dogges, and wind their horne, the more to encourage them, caſting boughes in the way of the Hart, thereby to hinder his ſwiftnes in running, if ſo be the hunt-man haue not alreadie caſt ſome therein, in his watch, at ſuch time as he made ſearch to find out the

the lodging of the Hart, or elſe the horſemen themſelues, before the vncoupling and letting looſe of the courſing dogges. In the meane time, if it fall out, that the Hart in his courſe doe happen to paſſe neere vnto the dogges of eaſement, the horſeman which keepeth the ſame, muſt marke whether the Hart be purſued with anie of the companie of the courſing dogges, and then preſently to vncouple the companie of his dogges of eaſement, hallowing and whupping the dogges continually, and caſting of boughs of trees in the way where the Hart ſhould paſſe: but if he perceiue that there be not any of the companie of the courſing dogges, neither yet heare any noiſe of the men that are hunting, hee muſt not vncouple any of his dogges, but onely marke the way that the Hart runneth, to make report thereof to the companie, to the end hee may know whether the ſame be the Hart in chaſe, or no: becauſe that ſometimes Harts are driuen through feare out of the places where they vſe to lye, hearing the noiſe of the companie of the dogges and horſemen.

In the meane time, the horſemen appointed to wait vpon the companie, muſt alwaies ſecond and keepe by the ſides of the dogges, to cauſe them the better to keepe and agree together, and to helpe them at a default, if at any time they happen to be out of the trace, and not to follow the right way.

The craftineſſe of the Hart.

They muſt alſo haue a care of the vviles and ſleights of the Hart, vvho vvhen hee ſeeth himſelfe neere purſued by the dogges, 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 dogges by that means to ouerſlip him, as not being able to find the ſent of him, hauing couched his foure feet vnder his belly, and drawing his breath from the coolenesſe and moiſture of the earth. Againe, he hath this ſubtletie and craft by nature, as to know, that the dogges doe gather more ſent from his breathing and feet, than from any of the reſt of the parts of his bodie. But to preuent this his craftie wilineſſe, 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 find the laſt feeting and breaches, which will yeeld ſome neere gueſſe of the place wherein he ſhall be hid.

Otherſome times, vvhen the Hart ſeeth the dogges chaſing him, and that he cannot auoid himſelfe from them, hee goeth from one thicket to another, 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 runne with him the ſpace of a whole houre or more vpon his way, afterward caſting them off, and making way for himſelfe out of and farre from any way. And if it happen that his wiles be found out by the exquiſite ſent of the dogges, 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 dogges: then after that, hee entreth into ſome large and wide way, which he followeth ſo long as his ſtrength will endure. To auoid theſe ſleights, the horſemen muſt haue an eie when the Hart ſhall fall into companie of other beaſts, and runne away with them, to the end they may ſtirre vp the old dogges of the companie to purſue the Hart with greater careſulneſſe, keeping neere about them to helpe and aid them: and if the Hart haue taken the broad way, to the end he may take away all ſent from the dogges (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 foot 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 way luſtily, and encourage their dogges, calling vnto them in cheerefull and cheriſhing manner.

Againe, it ſometime falleth out, that Harts doe run ouerthwart the burned grounds where the dogges can haue no ſent, becauſe the ſmell of the fire is greater than the ſent

of the Hart: yea, and ſometimes the dogges doe giue ouer courſing, hauing drawne into their noſthrils this euill ſmell: vvhereupon the horſemen muſt goe aſide a little out of their way with the dogges, vntill ſuch time as they be got paſt the ſame, and then bringing their dogges into order againe, let them encourage 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 dogges, as alſo that he may heare the noiſe of the dogges vvhich 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 forth by the dogges, as if they were wearie, and had beene long chaſed: theſe wiles doe ſhew them to be verie ſubtle and long winded, able to ſtand a long time before the dogges, truſting in their ſtrength: and this the horſemen muſt beware of, to the end they may be able to iudge of the deceitfulneſſe of the Harts: for ſometimes they faine themſelues ouer-chaſed, when indeed they are not.

The ſignes and tokens of a Hart ouer-chaſed.

The ſignes and tokens ſhewing that the Hart hath beene long chaſed, are theſe: if in running before the dogges he 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 legges: afterward, if he ſee a man vpon the ſuddaine, he lifteth vp his head, and giueth a great leape, as who would ſay he were yet ſtrong and luſtie: furthermore, if he haue his mouth black and drie, without any froth, and his tongue drawne vp into the ſame: if in his gate he ſhut his hoofe, as though he went ſteadie, 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 meet with a hedge, he holdeth along by the ſide of it, to ſee if he can find any out-gate, ſeeing his ſtrength faileth him to leape ouer.

The Hart long chaſed.

Now after his long running and manifold ſhifts, when he becommeth wearie and ſpent, and that he cannot longer ſtand out, being paſt all hope of himſelfe, he leaueth the low vvoods and forreſts, and flieth to the champion fields, or vnto the corn-fields and villages bordering next thereto, or elſe he betaketh himſelfe to ſome riuer or lake, whereby it falleth out oftentimes, that he auoideth and freeth himſelfe of the courſing dogges: for in champion places and void fields the ſent of the footing of the Hart is verie ſmall: and as for riuers and lakes, he hath the craft rather to take downeward with the ſtreame, than to ſwimme 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 find out his traces by the ſight of the eye, and with the blaſt of the horne they ſhall cheere vp and encourage their dogges 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 dogges to take the water: or elſe (if they be afraid of cauſing them to take cold) they ſhall ſend to ſeeke a boat: or elſe if they can ſwimme, they ſhall put off all their clothes, and with a dagger in one hand ſwimme 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 find ground for his feet, he would be able to hurt one of them with his horns, whereas in a deepe place he hath no ſtrength.

To become to ſtand to the bay.

The Beere for the Hart, and the Barber for the Bore.

Furthermore, there muſt great wiſedome be vſed in the hunting of the Hart, when he can no longer hold out, but being out of all hope of his life, ſtandeth ſtill, and ſuffereth the dogges to barke at him, for then he groweth dangerous, as being giuen to ſtrike with his hornes the firſt of the hunters that he can meet withall: And this is the cauſe why it is growne to a prouerbe, A Beere for a Hart, and a Barber for a vvilde Bore. Wherefore it ſtandeth euerie man vpon to looke vvell to himſelfe

in

in comming neere vnto the Hart when he endureth the bay, and not to aduenture too farre, and hazard himselfe too boldly.

When the Hart is taken, he that shall haue giuen the blow, shall forthwith thereupon sound the retrait, to the end hee may call together his fellow hunters and the dogges: 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 meet to be done In the meane time he must not forget to take care of the dogges, and to giue them some reliefe & sustenance of the prey they haue gotten in hunting: vnto the bloud-hound, 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 panne with cheese, and temper the same both together with the bloud of the Hart in his greatest heat, and afterward put all this prouision forthwith vpon the skin, stretched forth vpon the grasse, and in the meane space euery man shall put his horne vnto his mouth, and therewithall comfort and cheere vp the dogges.

Some men vse now and then (and yet after this first prouision) to make a second with the entrailes of the Hart all whole, which the master hunt-man doth cast vnto the dogges after they haue ended their feast, holding them vp on high: and whiles the dogges are eating these entrails, they must be cheered vp with the noise of the hornes, shoutings, and hallowings.

Chap. XXVI.

Of the profit that may be reaped by the killing of the Hart.

NOtwithstanding, that the hunting as vvell of the Hart, as of other vvilde beasts, be vndertaken and performed by great States rather for the exercise of the body and recreation of the spirits, than for any other desire and hope; yet the killing of the Hart is not without great profit, and that in two respects: the first being for the making of meat thereof: and the second, for the medicinable helps which may be made of his parts and members.

As concerning the meat made of the Hart: his flesh is not very pleasant, if it be not of that part of him which is commonly called the pizzle: for to speake generally according to the truth, Harts flesh is verie hard, of an euill iuice, melancholicke, hard to digest in the stomacke, and verie 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, vvho so is carefull of his health, should not touch anie such flesh, except it be of some tender Fawne, or young Hiude, vvhich are made seruices for the most part at the Tables of Princes and great Lords. *The flesh of the Hart.*

The medicinable helpes vvhich may be prepared and made of the Hart, are infinite.

Some find a bone in the heart of the Hart (howsoeuer there be some that thinke it to be false) which is singular good against faintnes, or swowning, trembling, and beating of the heart, and other effects of the same, as also against the venimes, poysons, and dangers of the plague, and likewise against the hard trauell of vvomen. *The bone in the Harts heart.*

The bloud of the Hart fried in a frying-panne, and put in clysters, doth heale the bloudie flux, and stayeth the flux of the belly: being drunke with vvine, it is a souueraigne remedie against poysons. *The bloud of the Hart.*

The priuie member of the Hart washed diligently in water, and the water wherein it hath beene so washed, drunken, appeaseth forthwith the paine of the collicke, and *The priuie parts of the Hart.*

retention of the vrine: if it be ſteept in vineger the ſpace of foure and twentie houres, and afterward dried and made in pouder, the weight of a French crowne of this pouder being drunke with water of plantine, ſtayeth the fluxe of bloud, and all manner of fluxe of the bellie. Likewiſe dried and poudred, it may be mingled with remedies which haue power to prouoke carnall copulation. It may alſo bee 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.

Flux of bloud.

The harts horn.

The horne of the hart burned, made in pouder and drunke with honie, killeth the wormes, which is a ſigne that the harts horne hath great vertue againſt venome, and that not much leſſe than the horne of the vnicorne.

The tender hornes of a young hart cut in ſmall gobbets, and put in an earthen pot wel leaded, and cloſe ſtopped with clay, and afterward put in a hot furnace vntil ſuch time as they be dried (they may alſo be beaten to pouder, putting thereto pepper and myrrhe) do yeeld a pouder which is ſingular good againſt the cholicke taken in excellent wine.

The cholicke.

The marrow and ſewet of the Hart.

The marrow and ſewet of the hart are good to make liniments and cataplaſmes for cold gouts, and tumours that are hard, and not eaſily ſoftned.

The hunting of the wild Bore.

Chap. XXVII.

The beſt time to hunt the wild Bore, and the markes of a good wild Bore.

The hunting of the wild bore dangerous.

IT is certaine that the hunting of the wild Bore is a great deale more difficult and daungerous than that of the Hart, in aſmuch as the wild Bore doth not feare the dogs, but tarrieth and ſtayeth their comming, and which is more, doth ſometimes ſet vpon them ſo far as till he be amongſt them, and all to the end hee may teare and rent them with his teeth, whoſe wounds (eſpecially thoſe that are giuen into the cheſt of the bodie) are (as it were) incurable. Wherefore the good huntſ-man that maketh any account 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 wild bore are dangerous.

To hunt wild bores.

But howſoeuer the matter go, yet this is to be knowne, that all Bores are not fit to be hunted, but ſuch onely as are not paſt foure yeares old, howſoeuer they may bee otherwiſe both faire, great and fat: for after foure yeares the wild Bore groweth leane through oldneſſe of age, and forthwith looſeth all his goodneſſe. Againe all times are not fit to hunt them in, but onely when they are in ſeaſon and in the beſt plieght, as namely from mid September to December, at which time they begin to go to rut: and yet in Aprill and May they are more eaſie to be taken in toiles, than at any other time, becauſe they ſleepe more in this ſeaſon than at any other time: and the cauſe is, for that they feed vpon ſtrong herbes, which ſtirreth the bloud, and ſendeth vapours vp vnto their braine, whereby ſleepe is brought vpon them: againe the Spring time doth then reſtore and renew their bloud, whereby they are brought to take great eaſe and reſt.

The beſt time to hunt the wild bore.

The huntſ-man therefore ſhall know the faireneſſe of the Bore, and that hee is worth the hunting, by theſe markes, that is to ſay, by his traces, rooting, ſoile, and dung.

The markes to know a wild bore worth the hunting.

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 gards groſſe and open, wherewith he muſt tread vpon the ground in the hard wherefoeuer hee goeth: all theſe things declare him to bee a faire and great bore. In like manner the traces behind being larger than thoſe before, doe ſhew the thickneſſe of his haunches: the wreathes and wrinkles which are betwixt his gards and the heele, if they make their prints vpon the ground, do ſhew that his ſteps are great and long. The markes of his traces deepe and wide, do ſhew alſo his heauienes and corpulencie. The rootings of the bore being deepe and large, do note the thickneſſe and length of his head.

The ſoile of the wild bore being long, large, and great, doth note and argue the bore to be great: or elſe in going from the ſoile, his greatneſſe 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 hee 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 wild bore after he hath bin at ſoile, goeth to rub himſelfe againſt ſome one tree or other, and there hee leaueth the marke of his height.

The dung of the wild bore being thicke and long, doth ſhew the greatneſſe of the wild bore, howbeit the hunt-man is not to preſent it vnto the companie, but onely giue them the view of it in place as it lieth.

Chap. XXVIII.

Of the wild Bore, tame Swine, wild Bore and wild Sow, and of their haunt.

THe difference betwixt wild Bores and tame Swine is this: The wild Bore in his gate doth alwaies ſet his hinder feet in the ſtepts of his fore-feete, or very neere, and doth pitch his ſteps rather vpon the forepart of the foot, than vpon the heele, reſting notwithſtanding his gardes vpon the ground, ſpreading the ſame abroad thereupon vnto the vtter ſides: the tame Swine in their gate do open the cleft of their hoofe before, pitching rather vpon the heele than vpon the forepart of their foot, and their hinder foot doth not ouer-reach their fore-foot: the ſole of their foot is full of fleſh, ſo that the prints of their ſteps cannot bee but vneuen, contrarie to that of the wild Bore. In like manner the wild Bore maketh deeper rootings, becauſe he hath a longer head, and when he commeth infields that are ſowne, he willingly followeth one furrow, nuſling all along the ridge vntill he come to the end of it: which the tame hog vſeth not to doe, for hee neither turneth vp the earth in ſo deepe manner, nor yet followeth on along with it as the wild Bore is accuſtomed to do, but hee caſteth vp one peece of ground in on place, and another in another further off, croſſing the ridges, the one of them not reaching vnto the other. Furthermore, when the wild Bores goe vnto the corne, they beare down the ſame all in a round; but ſo do not tame Swine. The wild Bore alſo hath this particular propertie, namely, that he is neuer meazelled as the tame Swine wil be. *The difference betwixt the wild bores and the tame ſwine.*

The difference betwixt the wild Bore and the Sow is this: The Bore goeth wider with his hinder legs than the Sow, and commonly ſetteth his hinder ſteps vpon the edges of his foreſteps on the out-ſide, becauſe of the thickneſſe of his hanches and ſtones, which cauſe them to go wider behind, which the Sowes do 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 narrow than the Bores. The bore with much adoe, and hardly, will be brought to crie when he is killed, but the Sow will not let to make you heare her aloud. *The difference betwixt the wild Bore and the wild Sow.*

The

The Bores haunt.

The wild Bore hath no certain abode, and as some say, he is but a traueller, because he doth nothing but runne from one forest and wood to another: and yet hee taketh great delight to remaine in the countrie and place where hee was bred: in so much as that if he be hunted by dogs from any bush or forest, 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 hee setteth vp the rest of his safegard, and maketh it the onely refuge of all his force and strength: he is also oftentimes found in the countries where small nuts and beech mast may bee come by, for he more delighteth to feed of them than of acornes.

Chap. XXIX.

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 than the wild Bore: and yet there may dogs be vsed, but with such discretion, as that the horse-men be alwaies mingled with them, and pressing vpon the Bore as valiantly and forcibly as they can: for when hee seeth himselfe set vpon with horse-men and dogs both at once, euen vpon the first push they besetting him hard, do astonish him, and cause him to loose whatsoeuer his courage, and in steed of wrecking his furious moode vpon the dogs, hee is constrained to run away and flie the countrie. Then also you must let slip some of your fresh dogs, or dogs of easement, but let them not be young nouices, but rather old ones, and such as haue beene well trained and taught, that they may succour the first, and force the Bore to a more speedie flight. And you need not feare that he should betake himselfe to any turnings, windings, or other deceitfull trickes, because he is heauie, 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 endure the abbaie (which he will neuer do vntill he bee mightily vrged) they must forthwith, 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 he 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 trueth, that if there be dog collers hung with bells put about the dogs necks which are called coursers, when they hunt the Bore, that he will not kil him so soone, but run away before them, neuer comming to the abbay.

The wild Bore is not giuen to turnings and wiles.

Chap. XXX.

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 imployed and vsed.

As concerning nourishment, the flesh of the Bore is better without all comparison than that of the Hart, for the proofe whereof I refer me to the stately bankets

bankets of the auncient Romans, who so greatly esteemed 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 the rest, the head of the bore, as being iudged a delicate and daintie fine morsell: young and tender wild Bores, are likewise very well accounted of, in Winter feasts and bankets. And to say the truth, the flesh of the wild bore doth nourish very much, and begetteth great quantitie of good blood: which are the causes why Physitians make such reckoning thereof, especially when the Bore is taken by hunting.

As for the Physicall helpes, the vrine of the wild Bore hath many vertues: you must take the bladder of the wild Bore, wherein there is yet some quantitie of vrine, and with this vrine mingle a little quantitie of oyle, hanging vp the same bladder in the smoake 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 bee carefully kept in the bladder, to vse to annoint the nauell, temples, and nostrels of young infants withall which are tormented and pained with wormes, which thing I haue often experimented with good successe. This vrine likewise thus prepared, doth break the stone of the bladder, especially if there bee some small quantitie of it taken inwardly in drinke: his gall likewise is good against grauell and the stone.

The vrine of the wild bore.

Worms in young children.

The stone.
The grauell.

The hunting of the Hare.

Chap. XXXI.

Of the pleasure of the hunting of the Hare, and of the dogs that are fit for the same.

Certaine it is that 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 prettie pleasures and recreations euerie houre, and of small charges, besides the securitie thereof, and the auoiding of the daungers and inconueniencies which are many, and 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 hee can, for it cannot but affoord him both pleasure and profit.

And whereas this game consisteth principally vpon multitude of dogs, the gentleman that will doe the deede, and hath a young companie 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 goe vncoupled, and to run 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 onely, 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 goe and raunge the grounds where they haue beene accustomed to find 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 & coolenes of the earth, but rather in the height of the day: for if you vse them to the coole seasons, and then afterward bring them to hunt at the height of the day, they feeling any heat or small wind will not afterward hunt any more.

To fit the dogs for to hunt the the Hare.

Wherefore the fittest time to traine young dogs vp in, and to make them fit for the hunting of the Hare, is after September vnto December, because that then the time

time is temperate, as alſo becauſe that the young hares are fooliſh, and but weake bodied, neither skillfull, nor able to worke their wiles : and beſides, becauſe they themſelues doe ſtart of themſelues many times before the dogs which take pleaſure therein, and become better entred and enured thereby, than they would bee, if they ſhould be hares that would run away and be packing apace from them.

Chap. XXXII.

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 hee can haue, and not what hee can find, becauſe of the ſwiftneſſe and wilineſſe of this little beaſt, which oftentimes diſappointeth him of his purpoſe: notwithſtanding if at any time it bee graunted 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 hunt-man to find the Hare before hee 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 feed vpon little hills vpon the herbe Penniroyall, or wild Time, are much better than they which keepe neere the waters, as alſo better than 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 far better than 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 commonly his dung ſmaller, drier, and ſharper at the point: the female hath them greater, rounder, and not altogether ſo drie as the males: the female hath a groſſer bodie, but the male hath a more ſlender and fine bodie: the male in comming out of his forme, hath his hinder parts whitiſh, as though hee had beene plumed: the male hath alſo red ſhoulders, with ſome long haires mixt amongſt, he hath alſo a ſhorter and more buſhie head than the female, the haire and beard of his iawes long, his eares ſhort, wide, and whitiſh: the female hath a long and narrow head, and alſo 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 & countrie, paſſing ſeuen or eight times by one place before ſhe euer ſquat: the male doth the contrarie; for being courſed with dogges, hee runneth ſometimes 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 forme, and not in the morning, becauſe of the dew: neither yet vpon the height of the day, becauſe of the heate. There is more regard to bee taken vnto her traces: for the print of the hares foot is ſharpe, and faſhioned like vnto the point of a knife, hauing her ſmall nailes all pricked right downe into the ground, and they doe 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.

Chap.

Chap. XXXIII.

The killing of the Hare.

FOr the hunting of the Hare, the very best time to kill her with coursing dogs, beginneth at mid September, and endeth at mid Aprill, because of the flowers and great heat which then begin to raigne, for both these are apt to depriue the dogs of their necessary scent: besides that, at these times the Hares are but young and feeble.

Notwithstanding, there be certain countries and seasons, where & when the dogs haue not any scent of Hares, as in Winter in the plaine countries where the ground is fat and 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 scent 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 than there is in broad and troden waies. In like manner 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. *Places in which the dogs haue no scent.*

Also high waies are very daungerous and ill to hunt vpon: for by reason of the much trauelling of men and other cattell, the scent which the Hare should leaue, is cleane taken away, and the dogs noses are stopt with contrarietie of odour: nor is it good to hunt where flocks of sheepe, heards of goats or cattell are kept; for the hotnesse of their sent taketh away all scent of the Haire.

The first point making way for the killing of the Hare, consisteth in finding out her forme, which the better to find, you must haue respect vnto the season wherein you go about it, and the time how it shapeth: for if it be in the Spring or Summer, 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 do the contrary: for they take vp their lodging in some thicke bushes, or thicke places of the wood, especially, when the Northren winds, and other high and low winds doe blow, for of such they are much afraid. Wherefore according to the time and place, where you shall see the Hares to take vp their lodging, you must prepare your dogs to go and set vpon the Hare within her forme, and when she shall bee started, the horse-men (which shall not be aboue three in number) must incourage the dogs to follow the chace, without making of much crying or greatly whupping of them, for feare of setting of them in too great a heate, which might cause them to ouerslip the traces, and not to hold on right. *That the finding of the forme of the Hare, is the first and chiefest step to kill her.*

But touching the most generall and best places for the finding out of Hares both Winter and Sommer, you shall repaire to the moores or heath which are ouergrowne with ling, or with gosse, whins, Brakes, or such like, for they are speciall harbours in which a Hare delights most: also in such places where there is great store of fog or long dead grasse which lieth vngot. You shall be sure to find Hares haunt, especially in the Spring time, because such ground being giuen to moisture, makes them take a greater delight therein: for Hares at that time of the yeare loue to haue all their hinder loynes couered with water: from whence it comes that the best Hare finders, when they seeke Hares, looke all the Winter vp to the top or ridge of the lands, and in the Spring, downe to the lowest bottome of the furrowes. Now as soone as you haue found your Hare, and started her, the horse-men which follow the chace, shall by all obseruations possible take good heed to the wiles and sleights of the Hare, the which are verie many and diuers, as in the time of raine the hare doth rather follow trodden pathes and broad then at any other time, and *What places are best to find the Hare in.*

if

if ſhe light vpon any vnderwood, ſhe will not go in but to refreſh her ſelfe by the ſides thereof, and letteth the dogs paſſe by: after when they are gone paſt, ſhe turneth and runneth backe in the ſame ſteps by which ſhe came thither, vnto the place from whence ſhe was diſlodged, rather than ſhe would run vp into the foreſtes, by reaſon of the moiſtneſſe which is amongſt the wood. When ſuch practiſes are in hand, the horſe-men 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 he ſhall be able to call in the dogs. The horſe-men likewiſe ſhall obſerue and marke whether it be a male or a female, and whether ſhe bee one that keepeth continually in the countrie, or but a gueſt for a night: for if ſhe be a wanderer and not of conſtant abode, ſhe will haue her forme in couert, and ſuffer the dogs to put her vp three or foure 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 horſe-man obſerue and marke the firſt place and compaſſe that ſhe taketh the firſt time after ſhe 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 ſhe be driuen to forſake her woonted haunt: and this commonly they do voluntarily betake themſelues vnto, if they be at any time courſed two whole houres, without default.

At the firſt when the dogs begin to courſe the hare, ſhe doth nothing but wind and turne, tracing 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 horſe-man to beare in mind the places and coaſts that then ſhe paſſed through: for if he returne at any other time, and haue her in courſe with the dogs, ſhe will paſſe by the ſame places, and practiſe the ſame ſhifts ſhee did the day before when ſhe eſcaped, and thus being before acquainted with her crafts, and ways which ſhe will run he may greatly help his dogs.

Some hares as ſoone as they heare the ſound of the horne do ſtart, and take ſome riuer or lake, and then you muſt vſe what good meanes you can to cauſe her to auoid the water, drawing the dogs neere 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 wearifome irkeſomneſſe to couragious and luſtie dogs, to be drawne a ſide ſo oft, it being their chiefe deſire to courſe ſuch a beaſt as will run out before them, that ſo they may runne according as their ſtrength will ſerue them. And for ſuch hares as are giuen to wind 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 find but only one way to go out, and by this meanes you ſhall abridge her much of her helpes, and driue her to forſake her ſhifts and ſleights.

There are alſo ſome hares giuen to run in trodden pathes, and high waies, to the end the dogs might not come by any ſcent of them, there being neither braunch of tree, nor herbes, nor moiſture, which can touch their bodies, to gather any ſcent for the dogs, in ſuch manner as there would, if they were in other couert places, as woods, corne, and other coole places, and eſpecially when they feed in any greene corne, becauſe they reſt their bodies in one place. When the horſe-man ſhall find ſuch hares, and ſhall perceiue the default of the dogs, by reaſon of the high way, he muſt draw them on forward all along the ſaid high way, following them continually vntil ſuch time as the dogs find her out gate, or elſe till he haue found ſome little valley or coole place in the middeſt of the way, where the dogs may ſeeme to haue found her ſcent. And he himſelfe alſo muſt light from off his horſe to ſee if that he can eſpie any of the traces of the hare, ſuch as we haue deſcribed them before. And by theſe traces or footſteps, he ſhall by little and little picke out which way ſhe is gone, and this amongſt huntſ-men is called the pricking forth of the hare, one obſeruation no leſſe needfull than any other obſeruation whatſoeuer: for it is not to be vſed onely in plaine high

waies

waies and foot pathes, but also in any other ground which is plaine, as vpon fallowe lands, or other worne ground where the greene swarth is taken away: and this aboue all other is the most safest and surest way for the recouering of a losse, because it goes not by coniecture or imagination, but by certaine knowledge, and by knowledge of that member by which the hound hunteth only, and by which he beareth the whole scent he seeketh.

The hare hath a thousand other shifts, all which in generall the warie and wilie horse-man may meet withall, if when he hath seene her fetch her first compasse, and withall got the knowledge of the coast, which she betaketh her selfe vnto in her course, he get before 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 yeares at the most, and especially the males: they haue this tricke with them, that if the male and the female doe 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 do 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 much 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 bodie of the hare, that so it may bee moistned and ouerdrowned with bloud, and after spread vpon the cleane grasse. For their second sort of meate, as a more royall banquet, if there be store of hares taken, it will bee good to vncase one and first taking out her lights, then to cast the whole carkasse 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 sicke at their stomakes, 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 bee brought to course the hart, hee will not make any more account of the hare, because he hath found and tasted the flesh of the hart to be far better than that of the hare. *The meat that is made of the hare for the dogs.*

Chap. XXXIIII.

What profit commeth by the killing of the Hare.

Like commoditie as is to be found in the killing of the hart and wild bore, may be found also in the hare: and to speake first of the food rising thereof, we see not any food more common, nor more in request in our countrie of France than the hare. It is true in deed, that Physitians do iudge the flesh of the hare to be melancholike, hard to digest in the stomake, and begetting a grosse iuice: but this is to bee vnderstood of old hares, as such as are aboue a yeare old, and such as are kept tame in boroughes and other inclosed places: but the young leuerets haue a very pleasant and daintie flesh to eate: yea in those which are growne great, there are some parts which are in request, as the loines, the shoulders and hanches. There may be marked in this little beast a marueilous fruitfulnesse in nature, for that monethly she bringeth forth a great number of yong 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 hermophrodites: but 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 say, to admit the companie of the male, thereby to haue a second conception, but by and by after she hath kindled, *The fruitfulnes of the hare.*

 she

ſhe taketh the buck againe, and that is the cauſe of their ſo great fruitfulneſſe: as much may be ſaid of conies which are a kind of hare.

The fluxe of the bellie. As concerning the medicinall vertues of the hare: the fleſh of the haire well roſted is a great helpe againſt bloudie and humorall fluxes of the bellie: the liuer dried in the ouen, and made into pouder, is ſingular good for them which haue a weake liuer.

The braines being throughly boiled and rubd vpon the gums of young children, helpeth them of the paines they haue of their teeth, and helpeth forward their growth.

Take a whole hare both skinne and haire (ſaue that you muſt take away her intailes) cloſe them vp in an earthen pot very 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 eaſily into pouder, in ſuch ſort, as that there bee left no manner of moiſture, for elſe you ſhould bee conſtrained to put the pot againe into the ouen vntill euery part and parcell were brought into pouder. The weight of a French crowne of this pouder, taken with white wine euerie morning two houres before meate, doth take away the difficultie of making water, and breaketh the ſtone both of the reines and bladder: but yet before the vſe of this pouder, the bodie muſt bee purged: and during the time of the vſe thereof, there muſt bee applied vpon the reines, two plates of lead of the breadth of foure 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 carried about women, hindreth their conception: but one thing of a certainetie, if it bee put vp into the ſecret parts of a woman in forme of a peſſarie, it ſtayeth the termes following exceſſiuely, and drieth the mother that is too moiſt.

The bloud. 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 ioint of her legs, which is ſoueraigne againſt the cholicke.

The hunting of the Brocke and Foxe.

Chap. XXXV.

The profit comming of the hunting of the Fox and Brocke.

The fleſh of the Fox is vnſauory THe killing of Foxes and Brockes, neither bring pleaſure nor profit to the hunters, taking profit in this place for meate and nouriſhment: for the Foxe his fleſh, (and much leſſe the Brockes) is nothing pleaſant to eate, in as much as it hath an vnſauourie, ſtrong, and wild kind of taſte. Howbeit *Galen* in a certaine place letteth not to ſay, that the fleſh of the Foxe hath the like facultie and vertue with that of the Hare: and yet in another place, as retracting his former aſſertion he ſaieth, that the Foxe is of the ſame temperature with the dog. It is certaine that ſome countrie people hauing not the benefit of any other victuall, liue not vpon any other than 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 proue ſomewhat good. Howſoeuer it bee, if any profit grow vpon the killing of the Foxe and Brocke, it is only becauſe they deuour fowle, and annoy the conies and warren,

Adde

Adde hereunto that the Physitians do make great account of the lungs of the fox, for the disease of the lungs and shortnesse of the breath: and of his grease, for the paine of the sinewes: of his bloud, for the stone: of the oyle wherein the whole bodie of the Foxe hath beene boyled, 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 profit that the bodie of the foxe doth bring forth in medicine.

Chap. XXXVI.

Of the two sorts of Foxes and Brocks.

Before we goe any further, there are two sorts of Foxes, and two sorts of Brockes, that is say, great Foxes and little ones accustomed to lie and lurke in their dens: and Brockes some like swine, and some like dogges. The two sorts of Foxes are sufficiently knowne. The hog-like Brocks are whitish, and haue the haire aboue their noses, and vnder their throats a great deale more white than the dog-like haue, their bodie of a greater bulke, their head and snowt also more grosse. The hog-like in going out of their dens do freely dung, but euermore they make a little hole with the end of their snowt before, or else scrape one with their feet, and then dung therein: the dog-like make their dung a farre off from their earths. The hog-like commonly make their dens in sandie or other ground that is easie to dig, and open places, to haue the heate of the Sunne, and being giuen to sleepe continually, they are fatter than the dog-like. The dog-like make their aboad in tougher earth, or else in rockes, making their holes and dens deeper and narrower than the hog-like, because they cannot dig the stiffe and tough earth or rockes, as the other do the sand and light ground. The dog-like haue their nose, throat, and eares yellowish, after the manner of the throat of a marten, and they are a great deale blacker and longer legd than the others. The two sorts accompanie not together, but they feed of all manner of flesh: they doe much harme in warrens, especially vnto the young rabbets which are within their nests, and are very sweet and daintie, but more to pigs and hogs, whereof they feed more than of any other flesh: they feed also of all sorts of wild flesh, as geese, hens, and such like: they are very cold and chil, and if they be left in any roome where fire is, they will goe lie in it and burne their feet: they will liue hardly, as also they haue a hard skin: they feare their nose notwithstanding very much, neither can one giue them euer so little a blow thereupon with a sticke, but they die sodainly: they are deadly enemies vnto the foxes, and oftentimes fight with them.

Brocks some like hogs and some like dogs.

Chap. XXXVII.

Of two sorts of earth-dogs vsuall to course foxes and brockes withall, and the manner of teaching and training of them thereunto.

Concerning the hunting of the Foxe and Broke. it is to bee 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-spannyels: those which haue the crooked legs creepe more easily into the earth than the other, and they are best for the brocks, because they stay long there, and keepe better without comming forth. Those which haue straight legs serue for two vses, because they run as coursing dogs about the ground, and also take

Two sorts of earth-dogs.

the earth more boldly then the other, but they tarrie not ſo long, becauſe they vexe themſelues in fighting with the foxes and brockes, whereby they are forced to come forth to take the aire.

How to teach, nurture, and traine vp the earth dogs.

Now if it fall out that the huntſ-man haue not earth dogs readie taught, hee may traine them in this manner. The time to begin to take them in hand, muſt bee when they are betwixt the age of eight and ten moneths: for if he will not be brought to take the earth at a yeare old, he will ſcarce euer be able to bee made to take it: againe, they muſt not be roughly dealt withall in the time of their training, neither ſo handled, as that they may take any hurt of the brockes in the earth, becauſe that if they ſhould be beaten or hardly handled, they would neuer tak the earth more. And for that cauſe it muſt bee carefully looked vnto, that ſuch young trained dogs bee neuer made take the earth, where there are any old foxes or brocks, but to let them firſt ſtay out their yere, and be throughly nurtured, and furthermore there muſt ſome old 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: as ſuch times as foxes and brocks haue young ones, you muſt take all your old earth dogs, and let them take the earth, afterward when they ſhal begin to ſtand at an abbaie, then muſt the young ones be brought vnto the mouth of the hole one by one (for feare they ſhould beate themſelues) and there cauſe them to heare the abbaie. When the old brockes or foxes ſhall be taken, and none remaining but their cubs, then you muſt take vp and couple vp all the old earth dogs, and after let looſe the young ones, incouraging them to take the earth, and crying vnto them, *Creepe into them baſſet, creep into them, How take them, take them*: and when they haue hold of any young brocke or foxe, they muſt bee let alone, till they haue ſtrangled him in the burrow or hole, taking heed that the earth fall not in vpon them, leaſt it might hurt them: afterward you muſt carie all the yong brocks and foxes vnto your lodgings, and cauſe their liuers and the bloud alſo to bee fried with cheeſe and fat, making them meate thereof, and ſhewing them the head of their wild fleſh.

They may alſo be trained and taught after another manner: as namely, you muſt cauſe the old brocks and foxes to be taken aliue by the old earth dogs, and with pincers fit for the purpoſe, take and breake all the teeth of the neather iaw, wherein the great gripers ſtand, not touching the vppermoſt at all, to the end that by it may continually appeare and be ſeene the rage and furiouſneſſe of the beaſtes, although they be not able to do any harme therewith at all: afterward you ſhall caſt earthes in ſome meadow plot of ſufficient largeneſſe, for the dogs to turne themſelues, and go in by couples on a breſt, couering the burrowes afterward with boords and greene turfes: this done, the brocke muſt be put in, and all the dogs both young and old let ſlip and incouraged as hath alreadie beene ſaid. And when they haue baited him ſufficiently, you muſt ſtrike ſeuen 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 grey-hound, that ſo there may meat bee made of him for them. And you muſt haue cheeſe which you muſt cauſe to be caſt them preſently after their wild fleſh, when it ſhall be dead: and if peraduenture you would not breake all the teeth of the neather iaw of the brocke, yet you muſt cut off all the greater and maſter teeth, that ſo he may be kept from biting and doing of miſchiefe.

CHAP. XXXVIII.

The manner of killing of the Foxe.

AS for the killing of the Foxe it is mnch more easie than that of the Brocke: herein especially, seeing that after they once scent the dogges which baite them, they gather themselues together, and rush out vpon the sodaine, except it be at such time as the female hath young ones, for then they will not forsake them.

The Foxe his borow.

Naturally they are giuen to dig their earths in places that are hard to be digged, as in rockes, or vnder the roots of trees: they haue but one hole, but it is both strait, and reacheth far.

Some hunt-men are of opinion (and sure it is very likely and credible) that the Foxe neuer maketh his owne earth or kennell: for though he bee the subtilest of all beastes, both touching his owne saftie, and the gaining of his pray; yet he is nothing laborious or giuen to take paines for any thing, but his bellie onely, neither hath nature giuen him any especiall instruments for the same vse, more than to other mungrell dogges of which he is a kind; so that he may scrach or digge vp the earth a little for the hiding or maine couering of his pray: but to make such tedious, deepe, long and winding vaults, and in such difficult and tough places is hard to bee coniectured: whence it comes, that those of better obseruation affirme, that the Brocke or Badger, or as some call him the Grey, by reason of his colour, who is a beast of infinit great industrie, cleanlinesse, and fearefulnesse, doth first make the Foxes earth, but not with any determinate purpose that the Foxe should inioy it, but as a place of refuge and rest, for himselfe onely, which as soone as the Foxe findeth out, he presently watcheth the going out of the Badger, and then entring in at the hole, he defileth the mouth and entrance thereof both with his dung and pisse (which is the loathsomest of all excraments) in such filthie and hatefull manner, that the Badger returning and finding his lodging so nastily beraied, presently he forsakes the place and commeth there no more, but leaues it to the Foxe and digs himselfe a new cell in another place. But to our former purpose, when the the dogges haue once ouerthrowne the Foxe, he resisteth a little, but it is not with any such boldnesse and courage as to daunt the dogs, neither hath he any daungerous bite: and yet some say, that he hath his shift, as to clap his taile betwixt his legs, (when he seeth himselfe once ouerthrowne by the dogs,) and to pisse vpon it, and therewithall to besprinckle the dogs, to the end that feeling the stench thereof, they may be driuen backe and let him depart.

By what means the Fox commeth to haue such great earths.

That the Foxe his vrine stinketh.

If you take a bitch Fox 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 prettie gobbets into some little pot all hot as they were cut away, and take *Galbanum* and put it in, mingling all together, and couering it, that all may not breath out: you may keepe it a whole yeare, and make it serue at any time when you would make a traine to allure the dog Foxe, by taking the skin or a collop of lard, and putting it vpon a gridyron, and when it shall be broyled and all hot, moisting it in the pot where the priuie part of the Fox and *Galbanum* is, therwith making all your traines: then you shall perceiue the male Foxes following of you euery where: but he that maketh the traine, must rub the soles of his shoes with cowes dung, least they should take the scent of his feete: Thus you may see the means how to draw on the dog foxes to any place where you may take them in a snare, or gin, and so kill them in the euening with a cros-bow.

How to take the Fox without hunting him.

This is most true, that if you rub an earth dog with brimstone, or with oile of the lees

lees of oyle, and thereupon cauſe him to take the earth, 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 earth of foxes or brocks, they muſt be waſhed with warme water and ſope, to rid them of the mould that ſhall bee gotten betwixt the haire and the skin, for elſe they would grow ſcabbed of a ſcab that would very hardly heale

Earth dogs ſubiect to the ſcab.

Some ſubtile foxe hunters take the foxe without any helpe of dogs, with this wile: they rub the ſole of their ſhooes with a great peece of lard lately roſted, at ſuch time as they are about to returne home from the wood, or from any plaine where they know that there is any foxes: after the ſame manner they vſe to ſcatter by the way (as they goe) little morſells of hogs liuer dipped in hony, drawing after them a dead cat: whereupon the foxe following the trace at hand, allured by the ſcent of the lard and hogs liuers: they haue a man accompanying them with a harquebuze, or arrow to kill him at a blow.

Chap. XXXIX.

The manner of killing the Brocke.

AS for the killing of the Brocke, it is more difficult than the killing of the Foxe, (as hath beene ſaid) becauſe their holes are deepe and narrow, and conſiſting of many conueyances and paſſages: for which cauſe it is meete and conuenient for the vndertaking of ſuch a worke, firſt to haue foure or fiue men furniſhed with ſpades and tooles fit for the digging of the earth: ſecondly, halfe a dozen of good earth dogs at the leaſt, euery one armed with his collar about his necke, of the breadth of three fingers, and hung with little bels, to hunt the ſeuerall earths, to the end that the Brocks may be driuen the ſooner to their ſtand, and the dogs defended the better by thoſe collars from taking any hurt: and when it is perceiued that the Brocks are at their ſtand, or that the dogs grow weary & out of breath, or the bels to be full of earth, you muſt take vp the dogs, and take away their collars from them: wheras at the firſt they are of good ſeruice, and cauſe the Brocke the ſooner to take them to their ſtand.

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 earths ſhould be 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 compelled and forced to the vttermoſt end of the vppermoſt holes, where the ſaid earths are not ſo deep as the other, and therefore may the more eaſily be digged.

But otherwiſe if the earth ſhould be in ſome raiſed peece of ground, and therwithall round about the ſame, the riſing ground being ſeated in the middeſt 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 and put into ſuch earths, there muſt twentie or thirtie blowes bee giuen with the head of the ſpade vpon the higheſt parts of the earths, thereby to cauſe Brockes to remooue from out of the middeſt of them, and to cauſe them to deſcend to the furtheſt ends of their earthes 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 eagreneſſe they may part and put a ſunder the Brocks which ſhal be together, and force them to flie to their reſts.

They haue a tricke to ſtand the abbaie at the places where their holes doe meete, and ſtoutly to reſiſt the dogs in ſuch places: which, when it is perceiued, it is requiſite to ſmite three or foure blowes with the ſpade, and if yet for all that they will not remoue,

remoue, 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 pierce 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 dogges: for which cause it behoueth, that the hole be bored right ouer where the voice of the dogge 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 middest, least the Brock should recoile vpon the dogge: and if it be possible to shut the dogge forth on the hinder part of the augar, it will be very good, for and if he should be shut within toward the fore-part of it, the Brocks might beat and handle him roughly, seeing that sometimes there are found mustered together in the vttermost end of one hole six or seuen, vvhich 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 end that it may serue to set a man in, and at conuenient time to let in some dogges by the said trench, and to cause them to hold a bay in that place, vvhere a man may see warring and fighting on all sides. These things thus furthered, care must be had, that the Brockes doe not couer themselues with earth, vvhich they are verie readie to doe, being driuen vnto their vttermost places of flight, insomuch, as that the dogges are sometime vpon or ouer them, and yet not know where they are. Afterward, their fort being throwne downe, you must pull them forth, not by the whole bodie, but by the nether iawes: for if you should take them by the vvhole bodie, they might hurt the dogges: and if by the vpper iaw, then you might hurt their nose, which is in them very tender, insomuch, as that being hurt therein, be 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 walls, to make them coursing-game for young earth-dogges. But in the meane time it will be good to draw your bootes vpon your legges: for when they are once throughly heated, they spare not to runne vpon men after the manner of the vvild Bore, in such sort, as that oftentimes they carrie away with them pieces of their stockings, yea, the flesh also, which is vnder them.

Chap. XL.

The hunting of the Conie.

WE haue entreated of Conies largely ynough vvhere vvee spake of the Warren, the hunting vvhereof is profitable, not onely in respect of the prouision of foode vvhich it ministreth, and that verie good, but likewise in respect of the dammage vvhich this little beast bringeth vnto Corne, Trees, and Hearbes: and that so dangerously (as *Strabo* vvriteth) as that certaine Nations vvere constrained, in the dayes of the raignes of *Tiberius* and *Augustus*, to send embassadours vnto the Romanes, that they might haue their aid and succour against the vrgent and sore pressing iniuries and dammages vvhich their Countries sustained through the excessiue number of these little beasts.

That Conies are harmefull.

Strabo.

Wee 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, but those of the Warren are somewhat more hard to take, because their nature is more enclining vnto wildnesse: The manner of hunting them is chiefely of two sorts, and both of them verie well knowne, that is to say, either with Pursnets, or with the Ferrets: As concerning the Ferrets, they are put into the holes of the Conies to fight with them, vvhereby they being astonished and

The hunting of the Conies of the Warren.

and frighted, bolt forth by and by out of their holes, and 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 catching of Birds.

Chap. XLI.

That men of old time made no account of catching of Birds.

THe taking of Birds hath not beene much approued nor liked of, by men of old 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 kind of exercise, whereby it might be made more nimble and readie to mannage 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 birds of all the reſt. All which notwithſtanding, the men of our time haue not ceaſed to put in practiſe many ſorts of taking of birdes, as, with birdes of the praie, which excelleth all the reſt, with great nets, ſmall nets, tonnelling, fire, ſnares, bundles of ſtraw, with the croſ-bow, long-bow, nooſes, pit falls, chirping, pipes, horſe, crow, bell, hand, and many moe waies, which are well enough knowne to birders: we wil firſt ſpeake of hauking.

Of Hawking.

Chap. XLII.

What Hawking is.

IT is moſt certaine, that the skill and knowledge of hawking hath beene brought into an art of late times, as hath beene ſaid: auncient writers, as *Ariſtotle* and *Plinie*, the admirers of high and excellent things, and the diligent and induſtrious ſearchers out of all things, would not haue caſt behind them ſo great and famous a worke of the skill of man, as to lure and reclaime the birds of pray, but would haue written of it, if it had beene then in vſe. For this is a wonder to ſee a bird which hath been wild 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 foules, and ſuch as liue below vpon the earth, and withall to take certaine foure footed beaſts, as the Hare, Rabbets, and Conies. This skill is now a daies ſo highly honoured, as that the great nobles of the world, will that it ſhould bee conſecrated wholly 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, and 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 hawking is the art and skill of luring and reclaiming of birds of the pray,

to

to cause them to flye at other birds, liuing either in the ayre, vpon the earth, or about the vvaters: so hee is called a Faulconer, vvhose place and office it is to reclayme such birds: vvherein, if vvee please to looke a little more neerely into the name, it should seeme, that the later Frenchmen haue followed the elder and auncient Frenchmen and Greekes in their giuing of names: For euen as the auncient Frenchmen were of iudgement, that the name of *Sacre*, which the Greekes named ἱέραξ, and the Latines *Accipiter*, was the generall name, vnder vvhich should be comprehended all birds of prey (howsoeuer that *Sacre* in French, and ἱέραξ in Greeke, be the speciall name of a bird of prey:) euen so the Frenchmen of our time haue agreed together, that the Faulcon should be the chiefe in his kinde, and affoord the generall name (as by the way of surpassing excellencie) vnto all other birds of prey: because that the Faulcon (compared with all the birds of prey) is the best of vving, 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.

Chap. XLIII.

What birds are good to make Hawkes of.

NOw wee must not thinke, that all birds of prey are good and fit to make Hawkes of, but onely such as are stout, and of a resolute courage, and are able to flye at anie bird vvhatsoeuer, either vvaterfowle, or land-fowle: of vvhich nature, there are tenne speciall and seuerall kinds, being sufficiently knowne of euerie one, and for the most part verie common to be had in Fraunce, that is to say, the Eagle, the Gripe, the Goshawke, the Sparrow-hawke, the Gerfaulcon, the Merlin, the Faulcon, the Lanier, the Sacre, and the Hobbie.

Foure of them flye from the fist, and kill at randome, as the Goshawke, the Sparrow-hawke, the Gerfaulcon, and the Merlin: and foure of them lye aloft in the ayre, as the Faulcon, the Sacre, the Lanier, and the Hobbie. As for the Eagle and the Gripe, they are not anie thing knowne in France. A great part of these birds (the Gripe onely excepted) haue the feathers of their traynes and vvings verie much glistering for the most part. All of them haue their beakes and tallons crooked, and they are almost like one vnto another, for they shew no difference, except it be in greatnesse, seeing likewise that their colour doth diuersly change according to their mues, vvhich cause them to be called Hagards, or Sores, all one with that which is vsually done by dried Herrings, vvhich are called Sores, or red Herrings.

There are verie manie birds of the prey vvhich are rouers continually abroad, neither can it be learned well from what place or countrey they come, nor vvhither they goe: so that wee might alwaies remaine ignorant of what countrey our Hawkes are, vvere vvee not giuen it to vnderstand by them vvhich vse to bring Hawkes out of Italie, Germanie, and other strange countries. Such as bring vs Hawkes, doe take them for the most part with lime-twigges, vvhich is the cause of the crushing of their feathers, vvhich yet may at pleasure be taken away vvith vvarme vvater.

But whether they be brought from farre, or bred neere about vs, for to reclaime and bring them vnto the lure, first, they must not be taken out of the neast before they be strong, and growne pretie great ones, and able to stand vpon their feet: for and if they

they should be taken away sooner, yet they must not be handled, but kept in a neast 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 fedde with liue meat as oft as may be, because it will make their feathers to put forth the better. Notwithstanding, the meat and flesh that is more than ordinarie good for them, is to feede them with the legges or necks of Hennes: 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, and the Bat: for if they should eate thereof, they would die. The flesh of Pigeons, young Swallowes, and Mutton, is farre better for them. Hennes flesh, being sweete and pleasant, doth trouble the belly of the bird, if she eate it cold: vvherefore, the bird that is greatly delighted with such flesh, might possibly forsake the game, and seize vpon Hennes, if she see any in her way as she is flying. Wherefore to meete with this inconuenience, you must feede the bird with young Pigeons, or young Swallowes: the flesh of Pies and old Pigeons is bitter, and bad for these kinds of birds: Cowes flesh is bad for them, as making them too laxatiue, vvhich commeth by the heauinesse thereof, vvhich 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: and in Summer it must be washed in cold water. The flesh that you feede your birds withall, must be picked, that there bee not fat sinewes or veines left vpon it. You must not suffer them to eate whiles they will at once, but with some small distance of time betwixt, letting them rest in eating: and now and then you must hide away their meate, before they bee full gorged, and then afterward giue it to them againe: but when it is taken from them, and 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 vvoods. Yearely in the beginning of Autumne they must be brought downe by laxatiue medicines, if they be too high: as namely, by giuing them Aloes vvith their meate: vvhich must be of some good, liue, and warme meate, for otherwise they would be taken downe too much. After that they haue beene purged, you must prepare them for the game: and againe, when you are purposed to flye them, it will not be amisse to giue them casting of Towe, 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 meanes they will become more healthfull, of a better appetite, more emptie, swift, and readie for the prey. 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 feede her on your fist with some liue bird, for at such times her entrailes are much dried. They are discerned to be sicke, vvhen their fundament swelleth and becommeth red, as also their nosthrils and eyes. And thus much of the luring and reclaiming of them in generall: now let vs goe vnto the particular.

To purge the bird.

To cause her to slice out.

Signes declaring the birds of the prey to be sick.

CHAP.

Chap. XLIIII.

Of birds of the prey in particular.

AMongst all birds of the prey, the Vulture (called of the Grecians γύψ, and of the Latines *Vultur*) is the greatest: a passenger (or bird for a time) in Egypt: knowne in this countrey rather by his skinne and feathers, than otherwise, because the Skinners are wont to make stomachers to lay ouer the stomacke, and the Fletchers feathers thereof, to set vpon arrowes. They may be fed with small tripes, dead carkasses, and out-castings of beasts. Likewise some report of them, that ordinarily they follow Campes, 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 butt. *The Gripe.*

The Eagle is called the King of birds: very vnhandsome to carrie 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. Wherfore, who so desireth to haue him good, must take him in the neast, and reclaime him with coursing-dogges, to the end, that when he is to flie, he may follow them, that so they hauing put vp the Hare, Foxe, Roe-buck, or any other such beast, he may seize vpon it to stay it. He may be fed with any manner of flesh, especially of such beasts as he taketh and seizeth vpon. The Faulconer must be diligent to attend him well, because he is very apt to flie away: but that mischiefe may be preuented, by sewing the feathers of his traine in such sort, as that he cannot spread them to flye with them: or else by plucking bare the hole of his fundament in such sort, as that it may appeare: for thereupon he being driuen into a feare of the cold, he will not be hastie to soare so high. The Eagle is knowne to be good and faire, when he is of a red colour, hauing deepe eyes, and a whitenesse vpon his head or back.

The Sparrow-hawke & the Goshawke differ not in any other point than in greatnesse and strength: because the Goshawke is of a stronger nature, and therefore not so soone sick as the Sparrow-hawke: they are both of one kind, as are also the Rauen and the Iay, the great dogge 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 young out of the neast. 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 young ones. *The Sparrow-hawke and the Goshawke.*

The goodnesse and fairenesse of a Sparrow-hawke is knowne by their being great and short, and yet hauing a little head and somewhat round aboue, a thicke beake, the eyes somewhat hollow, and the circle about the apple of the eye of a colour betwixt greene and white, a long and somewhat thick neck, 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 legges, sharpe tallons, thicke and broad shoulders, long and small feet, blacke feathers when they are taken young in their aire, and which follow the old one from bough to bough, hauing neuer yet mued.

And though here, for the familiaritie and common vse we haue of them, I put the Sparrow-hawke before the Goshawke; yet it is to be vnderstood, that the Goshawke is a great deale the more worthier Hawke, both in respect of her beautie and comelinesse, as also in respect of the worth & estimation of the prey she killeth: for amongst Faulconers, that Hawke is held worthiest which killeth the greatest prey: The Mallard-killer be valued before the Partridge-killer, and the Hearne-killer before the Mallard: so the Sparrow-hawke, which is most vsuall for the Bush and Blackbird, at the most can aspire no further than the killing of a Poote, or a Partridge, cannot compare with a Goshawke, which killeth not only the Partridge, but the Phesant, Hare, & Conie. Most of the French Goshawkes breed in Norway, but they are the worst kind, *The Goshawke more worthie than the Sparrow-hawke.*

and

and neither ſo valiant, ſound or durable, as thoſe which are bred in Ireland, eſpecial-in the North parts thereof, which are eaſie to bee knowne from any other countrie goſhawke, by the ſlender and fine ſhapes of their heads, their exceeding quicke and ſharpe looking eies, and the paliſh or ſea-coloured greeneneſſe of their legs. As for the ſparrow-hawkes, they are bred both in France, England, Ireland, and many other countries, and very good and hard hawkes in all thoſe places: yet are ſome ayryes better than other ſome, according to the ſcituation of the place, and temperature of the ayre, for ſuch as are bred in warme climats, and where they pray but vpon ſmall birds, as ſparrowes, robbins, wrens, linnets, and ſuch like, are nothing ſo valiant as thoſe which are bred in cold climats and tall woods, where they pray vpon black-birds, iayes, pyes, and ſuch ſtrong and fiercer foule: neither is the ayre of the wood ſo good as the ayre of the rocke, becauſe their pray being ſo neere vnto them, they do not labour or take that toyle which the other doth, and therefore are much more ſloathfull of wing, and leſſe giuen to paines taking: alſo the ayrie which buildeth higheſt and vpon the talleſt timber trees is the beſt, becauſe it ſheweth courage in the mount, and thoſe which build low and neere to the ſprings are worſt, for it ſhewes a faintneſſe of ſpirit and a ſloathfulneſſe in nature. Now though the beſt taking of either of theſe hawkes (as before I ſaid) is when they are branchers, and are able to follow their dams from bough to bough, and to foot the pray which ſhe killeth for them: yet ſome Faulconers loue to take them from their neſts, as ſoone as they be diſclofed, and to bring them vp in ſuch maner, as they may know no other damme but their keeper, being perſuaded that ſuch familiaritie and long acquaintance with the man, makes them more louing, and leſſe apt to take toy and flie away than the other by many degrees, and doubtleſſe it is moſt true: yet theſe thus brought vp, and which are called of Faulconers Iias-hawkes, are nothing ſo valiant as thoſe which are taken long time after, and are called ramadge hawkes. Beſides this, too much familiaritie or acquaintance with the man, makes them ſo ouer fond and doting, that they will neuer leaue crying, or making a noiſe as oft as they are either bare faced, or want any thing they deſire: beſides they will be ſo doting of the man, that you ſhall be a much longer time in entring them or making them foot the praie than the other, becauſe they will expect euery thing from the keeper, and rather flie and ſit vpon his ſhoulder than labour or ſtriue for the pray which flies before them: therefore howſoeuer the care of holding or keeping your hawke faſt vnto you, may intice you to eſteeme the Iiaes hawke, yet you ſhall euer find the ramage or brancher much leſſe troubleſome, and fitter for your purpoſe.

Differences and qualities betweene the Ramage or Braundcher hawks and the Iias hawks.

The way to take them is thus: the birder muſt bee hid behind a buſh, and before the buſh a plaine or ſmooth aire, but foure ſquare, and ſix ſticks prickt downe about it of the thickeneſſe of ones thombe, and of the height of a man, three on euery ſide: to theſe ſtickes you ſhall tie nets of greene threed that is very ſmall, and to them a ſmall line or cord, which ſhall be at the commaund of the man that is hid behind the buſh: within the aire there ſhall feede diuers ſmall birds, eſpecially ſpinks, or chaffinches, whereupon the ſparrow hawke will not faile by and by very 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 day: they muſt be fed twice 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 emptineſſe of their gorge. They mue yearely in March or Aprill, and at ſuch times they muſt be kept in warme places, or in ſuch places as where the South Sunne ſhineth againſt ſome wall. Their meat muſt be of good fleſh, as birds or mutton, that ſo they may become very fat: the ſparrow hawke

hawke is apt to flie away: but to preuent the ſame, her keeper muſt be carefull to doe her no hurt, neither yet to gainesay her in any thing, being giuen to be diſdainefull. When he goeth forth to flie her, he muſt not let her range any farre way off, becauſe that if ſhe miſſe of the bird ſhe flieth at, ſhe goeth for anger, and 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 reaſonably take, giuing her of her prey to feede vpon, that ſo ſhe may perceiue and find, that her prey is ſomething worth vnto her, and thereby become the more freely ſtirred vp to flie. The birds which ſhe taketh, are the Partridge, Quaile, Stare, black-Bird, and other ſuch like. For to flie her at ſmaller birds, as the hedge-Sparrow, Linnet, and ſuch like, is not good, becauſe being naturally coy, and apt to find fault, it will entice her to carrie and flie away with the prey in her foot, to which they are more apt than any other Hawke whatſoeuer: and hauing once found a taſt or ſpice thereof, they are euer after verie hardly reclaymed. It is good to enter your Sparrow-hawke firſt at the Partridge, vvhen the game is verie young, and not able to flie either farre, or aboue one flight at moſt, that thereby ſhe may get bloud quickly, and ſo be encouraged to flie the game home: vvhereas entring her at ſtrong game, ſuch as are able to flie farre, and oft, miſſing the firſt or ſecond time, ſhe will take ſuch a diſtruſt to her wing, that not being able to truſſe or foot them at the firſt ſpringing, ſhe will preſently turne tayle, and refuſe to flie further. There be ſome that vſe to enter their young Sparrow-hawkes at the hand Partridge ſeeled, in this manner: They take the Partridge, being ſeeled, and a long creance faſtened to her feet, and then comming into the field, in a place likely for haunt, digge vp a round ſodd, and lay the Partridge into the hole: then couer the Partridge with the ſodd, ſo as it cannot riſe, and to the ſodd alſo faſten another creance: and then encouraging the Spanyels to hunt, and making ſuch a cheerefull noyſe vnto them as Faulconers are wont to doe in ſuch like caſes, on the ſuddaine plucke the ſodd from the Partridge, and let her ſpring in the full view of the Hawke: then let off the Hawke after her, and hauing footed her, feed her very well vpon the ſame: and thus doe twice or thrice, but no oftener in any caſe, leaſt the Hawke finding your deceit, and her owne eaſe, looke ſo much for it, that ſhe will refuſe to flie at any other game. And theſe flights are called traines, becauſe they only traine or teach a young Hawke how to beſtow her wing, and make her ſelfe victor ouer the prey ſhe ſeeketh: yet theſe muſt be vſed but onely at the beginning, and not often, for feare of the inconuenience before rehearſed. Some other old Faulconers enter their Hawkes at the Quarrie, which is, when an old Hawke hath flowne the Partridge to the marke, and is vpon her wing readie to attend the retriue, then to let in the yong Hawke to the old, that they may both come to the death of the Partridge together. This is alſo a good manner of entring of Hawkes, but is fitter and more oftener vſed for entring of Hawkes at the riuer, than at the field, becauſe thoſe often ſtoopings at the riuer makes a Hawke more expert and cunning, and ſhe ſtandeth in much more need of inſtruction and example in that, than in the other.

How to enter your Sparrow-hawke.

There muſt great care be had to heale her when ſhe is ſicke. If ſhe fall into an ague after much flight, or by reaſon of other accidents, ſhe muſt be ſet in coole places, vpon ſome pearch, wrapped about with wet clothes, and feed her a little and often with the fleſh of little Chickens, firſt ſoaked in vvater, vvherein haue beene ſteeped the ſeedes of Cucumbers or Gourds. If ſhe be ouer-cooled, ſhe muſt be ſet in warme places, and fed with the fleſh of ſome Cockrell or Pigeons ſoaked in vvine, or in the decoction of Sage, Marierome, or ſuch other Herbes. If ſhe haue lice, you muſt annoint her pearch with the iuice of Nightſhade or Wormewood. If ſhe haue the vvormes in her belly, you muſt powder her meat with the powder of Peach-tree leaues. If ſhe digeſt her meat ill, and keepe it altogether, you muſt make her ſwallow downe the heart of a frogge into her throat, pulling the ſame backe againe by and by, being held by a ſmall thred, for ſo you ſhall make her caſt all her meat. If ſhe haue the gowt in her wings or legges, you muſt let her bleed ſome few droppes of bloud vpon the veine that is vnder her wing or thigh. If ſhe haue the gowt in her foot, you muſt annoint

The diſeaſes of the Sparrow-hawke.

annoint her feet with the iuice of the herbe, called in French *Lectorelle*, as alſo, her pearch, annointing the place afterward with tallow.

Phiſicke for Hawkes.

If ſhe bee troubled with the frounce, or mouth canker, you ſhall waſh the ſore with allome and ſtrong vineger, beaten together till they be as thicke as puddle. If you will prepare her ſtomake for the receiuing of a purge, and both comfort and ſtrengthen it, you ſhall waſh her meate in water, in which cloues and licoras haue beene ſteept: if you will purge her ſtomake, you ſhall giue her *Aloes*: if you will purge her liuer, you ſhall giue her *Rubarbe*: if you will purge her kidnes, or take away the ſhortneſſe of breath, or kill wormes, giue her *Agaricke*: if you will purge her of her gripings in the bodie, or take away the pantas, or kill fellanders, giue her *Rewe* or herbe of grace: if you will comfort the heart, or fortifie the lungs, giue her Saffron: to cleanſe away all putrifaction, giue her Myrhe: if you will purge her head, take away windineſſe, or what griefe commeth of cold cauſes, giue her Muſtard-ſeed: if you will purge from her groſſe humours, giue her wormewood: for any diſeaſe of the liuer whatſoeuer, there is nothing better, than to waſh her meate in the water of Liuerworte: for any inward inflammation, waſh her meate in the water of Sorrell: for the caſting of her gordge, and to ſtrengthen the ſtomak againe, waſh her meate in the iuice of Mints, or the diſtilled water thereof: for all dulneſſe of ſpirit, and ſadneſſe of heart, waſh her meate in the water or iuice of burrage, or bugloſſe: to mollifie the hardneſſe of the liuer, or any other oppellations, giue her the iuice of Hearts-tongue: to make away obſtructions, or ſtoppings in the head, giue her either Roſemarie, or the water thereof: for the weakeneſſe of the ſinewes, trembling of members, or for cramps, ſwellings, ſoares, or canker, giue her ſage-bruiſe outwardly, or the iuice inwardly: for purſineſſe, or ſhort breath, giue her the iuice of Horehound: for the numbneſſe or ſtiffeneſſe of ioints, cankers, or ſores, bathe them in the decoction of of woodbine: for all manner of infection, poyſon, or inward bruiſes, giue her the herbe *Cardus Benedictus*, which herbe, you may giue either greene, or dryed, either the iuice, or the powder, or if you pleaſe, you may giue the diſtilled water: for the biting of any mad dogge, or any other venimous beaſt, annoynt the place either with Angelica, or the iuice of an onion: for any extreame drought or heate which is in the ſtomake, waſh all her meate in the decoction of French Barley: for any Fiſtula, or cankorous ſore, take Brimſtone: for the Pantas, take Butter and Roſe-water: for the Crampe, take Poli-podie of the oake, or the iuice of *Brianie*, or of Garlicke, or where they faile, take the powder of the rootes of *Pionie*, and let the Hawke ſmell to the ſame, or pounce her nares therewith: for the falling ſickneſſe, waſh her meat in the iuice of Pellitorie of Spaine: for the pinne in the foot, make her a plaiſter of *Galbanum*, white pitch, and Venice-turpentine, and applie it to the ſame: Laſtly for the Rie, which is a diſeaſe of all other, moſt common and incident to all manner of hawkes, but eſpecially to theſe ſhort winged hawkes, you ſhall take a rumpe of mutton, and cut away the fat which is about it, very cleane, and then foulding the ſame in a handfull of parceley, let your hawke feed and tire herſelfe thereupon at her pleaſure, and it will make the filth to iſſue and come forth out of her nares, and purge her head wonderfully.

The ſeuerall impediments of Hawkes.

The Faulcon (as we haue ſaid) in the art of hawking, is ſometimes a generall word taken for all kinds of hawks, ſometimes it is taken for a ſpeciall word, and according to that ſence, there are diuers ſorts of that name, which I omit to intreat ſeuerally of, becauſe of ſuch as haue written of the nature of birds: but howſoeuer, the Faulcon is the prince of the birds of pray (I meane in reſpect of flight) for her ſtoutneſſe and great courage, and is to be accounted of great value, when ſhe hath a round head, and the top of her head is full, her beake ſhort and thicke, her noſtrels 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 feet, blacke, ſharpe, and pearching talons: and which is for bigneſſe neither too great nor too little.

The

The Faulcon, as all other birds of prey, hath her Tiercelet, and they are called of the Latines *Pomiliones*, that is to say, small birds, resembling them, and nothing differing from them, saue onely in greatnesse: and they are all of them (as it were) the males of the birds of prey, the females being, for the most part, of greater bulke and bodies than the males. That of the Faulcon is called nothing but a Tiercelet, or the male Faulcon. The Tiercelets of the other Hawkes haue their proper names: as, the male Sparrow-hawke is called a Musket: the male Lanier, a Laneret: and the male Sacre, a Sacret. The Tiercelet of the Faulcon hath his feathers verie glittering, his head and eyes black, ash-coloured vpon his back and traine, and yet glittering. He is a Hawke for the lure, as also the Faulcon, and not for the fist. His legges and feet are yellow, hauing for the most part a pale breast: he carrieth two very black spots vpon his feathers, on the sides of his eies. To reclaime the Faulcon, you must haue him commonly vpon your fist, feed him with the wings and legges of Hennes 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 be vsed first to take small birds: then, indifferent great ones: and afterward, greater ones: but you must not feed them with any part of the birds which they shall haue taken. They flie maruellous swift, and mount very high, there houering and soaring, but withall, still looking downeward: and when they see the Duck, the greene Goose, Crane, or Heron, they come downe like an arrow, their wings shut and drawne together, right vpon the Fowle, to breake in vpon her with her tallons behind: at vvhich time if they happen to misse, and the Fowle flie away, they presently flie after: but and if they cannot seize vpon her, as enraged and angrie, they take so long a flight thereupon, as that they loose their master.

The Faulcon is more fit than any other Hawke to flie the Heron, and all other fowle of the riuer. Her diseases, and the curing of them, are like vnto those of the Sparrow-hawke: howbeit, the Faulcon is of a stronger nature than the Sparrow-hawke.

The Hobbie is the least of all Hawkes 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, & the Sacre. This bird is sufficiently knowne euery where: for there is not any country where the Hobbies doe not follow the hunters, in as much as it is the proper worke of the Hobbie to make her prey of the little birds as they flie, as by name, the Larke. This is his speciall propertie, that hauing found the hunters in the field, going to hunt the Hare or the Partridge, he keepeth them companie, still flying ouer their heads, hoping to meet with some one little bird or other which the dogs shall put vp: but for the most part these little birds doe rather chuse to become a prey vnto the dogges, or else to find out some means to saue themselues amongst the horses, or to be taken aliue, than to commit themselues to the mercie of the Hobbie, 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 vvoods of high timber-trees, vvhere they keepe and pearch ordinarily. He hath a blew beake, yellow legs and feet, the feathers vnder his eyes very black, the top of his head betwixt black 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 very blew: his back, traine, and wings, black 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 can see him flying in the ayre, he may be perceiued to be somewhat red vnder his traine, and betwixt his legges.

The Hobbie is so quicke and swift, as that he dare aduenture vpon the Rauen, and giue him many a drie bob in the ayre.

He is chiefely esteemed for the sport of darying of Larkes, to which he is naturally inclined, because it is the prey in which he most naturally delighteth: and the manner of daring of Larkes is in this sort. When you see a Larke play and flie neere vnto the ground, quiuering her wings, and making a gentle noise in the ayre, you shall then *The vse of the Hobbie.*

lift vp your fiſt whereon the Hobbie ſitteth, and giue her the ſight of the Larke, vvho preſently thereupon will ſpread them abroad, and waue them in the vvind, at vvhich ſight the Larke will leiſurely ſtoope downe to the ground, and there lye cloſe, as if ſhe were vnperceiued, vvhileſt you in the meane ſpace ſhall with your Horſe and Hawke ride about her, and about her, till you come ſo neere her, that you may lay your daring-net ouer her: vvhich net is a little round net like a Purſnet, not aboue a foot or two ouerthwart, and faſtened bought-wiſe vnto the end of a long pole, like a Hawkes pole: as ſoone as you haue couered the Larke, you ſhal light and take her vp, and giue your Hawke the head onely. This is a ſport very delicate, and of long continuance, and therefore much reſpected amongſt ladies and gentlewomen.

The Merlin. The Merlin is the leaſt of all other Hawkes which Faulconers make any vſe of: he is for the fiſt, and not for the lure: howbeit, for neceſſitie 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 greatneſſe: for he hath the ſame geſtes, plumage, and conditions: vvherefore he muſt be reputed as royall as the Faulcon, or at leaſt of the ſame linage and nature with the Faulcon. He is very ſtout of courage: for although he be not much bigger than a Black-bird or Pigeon, yet he dareth to aduenture vpon the Quaile and Partridge, and ſuch other birds greater than 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 manner that the Faulcon. The generall prey whereupon he moſt ordinarily feedeth, is the Larke: vvhence it commeth, that he euer chuſing to liue vvhere they moſt haunt, hee is often taken with the day-nets: for ſtooping to ſtrike at the Larke, he is taken in the net himſelfe. Of Merlins there are both male and female: the male is called the Iack-Merlin, and is as the male of other Hawkes, a great deale leſſe than the female, and indeed are ſo very little, that they are of very ſmall or no vſe: the female is called the formale, and being much larger, valiant, and full of courage, they will ſley the Partridge all Summer long. Theſe Merlins are of all Hawkes the tenderest, and can the leaſt endure cold of any bird vvhatſoeuer, eſpecially of their feet: vvhich being once nipt vvith froſt, and benummed, they preſently vvill eate them of themſelues, and ſo become lame and vſeleſſe. Therefore vvhen you mue them in the Winter time, you ſhall mue them in a very warme and cloſe houſe, and vpon a pearch very well lined and couered with thicke liſts, or other vvoollen cloth. Some vſe to line their pearches with Cony-skinnes, or other furred skinnes, turning the furred ſides outward, but that is ſomewhat too hot, and makes them more tender and apt to feele the cold than otherwiſe they would be: vſe then a moderate temper of warmth, and no further. Of all ſorts of Merlins, the Iriſh Merlin is the beſt, for ſhe is neuer at any time troubled with this infirmitie: and you ſhall know her by her pale greene legs, and the contrarie Merlin by her bright yellow legs When they haue flowne all Summer at the Partridge, you may make them for the buſh in the Winter, and ſo haue them flying all the yeare; vvhich is the beſt courſe that can be taken with them: for they are naturally of themſelues ſo tender, that they can verie hardly endure muing.

Of Merlins.

The Iriſh Merlin.

The Gerfaulcon The Gerfaulcon is a bird that is ſeldome ſeene, except it be amongſt Faulconers belonging to great Lords: ſhe is a great bodied bird, inſomuch, as that ſhe is thought of ſome to be a kind of Eagle: ſhe is fit to flie at any thing, for ſhe is bold, and neuer giueth ouer any thing: but ſhe is more hard to reclaime and bring to the lure, than any other Hawke, becauſe ſhe is ſo venturous and fantaſticall: for and if ſhe be not handled gently, and haue a mild maſter to vſe her kindly, 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 bill, legges, and feet of a blew colour, and her tallons very open and long: ſhe is cunning at the taking of the birds of the riuer, for ſhe wearieth them in ſuch ſort, that in the end they are forced to yeeld, as not being able to diue any more.

The principall flight wherein ſhe taketh delight, is at the Herne, for her ſpirit

and

and courage ſtirs her vp to actions of the greateſt worth: and of theſe Gerfaulcons, the white is the principall beſt of all other, and of greateſt price: they are exceeding tender, and very apt to take ſurfeits, and therefore ſeldome long liued, which is the reaſon that they are not of ſuch generall vſe as other hawkes are, neither are they got but with great coſt, and painefulneſſe which maketh them to be held of very great price, and ſo not for euerie ones purchaſe. Aboue all other things, they may not endure the loſſe of any bloud, in ſo much that the ſhedding of one poore droppe, though at the pounce, or other outward part which is leaſt mortall, is the vtter loſſe of the haukes life: they can in no ſort be kept too cold, or withered too much, in ſo much, that if after her flying, you ſuffer her to ſit abroad one whole froſtie night, ſhe will be much the ſounder, and better for the ſame. Nay I haue ſeene ſome Faulconers, which after the bathing of the hawke, haue ſet her abroad till the moiſture hath beene frozen vpon their feathers, and hath beene perſuaded that ſhe hath flowne her next flight much better for the ſame: ſhe muſt be exceeding painefully laboured withall at her firſt beginning, for ſhe is apt to take deſlike at the mans face, and therfore muſt be carried vpon the fiſt more than any other hauke: ſhe muſt alſo be kept much bare-faced after ſhe is acquainted with the man, and continually ſtroaked and coyd about the head, bodie, and feet with a looſe feather, to make her more tame and gentil: ſhe muſt alſo be much whooped and gibbetted vnto, that ſhe may be acquainted with the voice of the man, and with thoſe ſounds which ſhe muſt obey and follow: ſhe may very well be flowne from Michaelmas vntill the Spring, but in no wiſe after; for the ſeaſon of the yeare growing then warme, and luſt ſpringing within her, out of a naturall inſtinct which ſhe hath to her owne clyme, ſhe will away and leaue you, how well ſoeuer reclaimed, or how ſharpe and fit ſoeuer ſet for the pleaſure you go about: In ſo much that it hath been credibly known, that diuers Gerfaulcons haue beene taken vp in Iſland, ſome with French, and ſome with Engliſh varuells vpon them, to the great admiration and aſtoniſhment both of thoſe which haue taken them, and thoſe which haue loſt them. The Gerfaulcon like the Faulcon gentill, is to to be choſen all of one peece, and either a blacke or ſandie male, by no meanes dropt, but of a cleere and bright plume, with ful ſummed feathers, vnbruſed, and vnbroken: of all hawks they couer their ſickneſſe longeſt, and out of their mettalls ſeeme ſound, when they are inwardly moſt rotten; therefort it is not good in any wiſe to buy or meddle with them til you haue ſeene them mute, receiued a full gorge, and put it ouer, and laſtly in the morning haue ſeene her caſting: in all which if you find no extraordinare imperfection, you may then ſafely buy her, and what loſſe after ſucceeds impute it to your owne negligence. The male to the Gerfaulcon is that which is called the Ierkin, being a much leſſe bird, yet of exceeding good mettall and courage, and as fit to flie at the riuer, as any other hawke vvhatſoeuer, hauing a naturall loue to all manner of water foule, and continually when he is vvild, making his prey vpon the ſame.

Of Gerfaulcons the white is the beſt.

How to keepe vſe the Gerfaulcon.

The Sacre being a principall bird amongſt thoſe of the prey, is like vnto the Faulcon in greatneſſe, a hawke that is good for the Kite, but hee may bee made fit for any vvild fleſh, as alſo for the open field to take wild Geeſe, Feaſant, Partridge, and all other ſorts of vvild foule.

The Sacre is of more ill fauoured coloured feathers than any other hawke, for ſhe is of a colour as it were betwixt red and ſmokie, ſhort footed, hauing blew legs and talons. It is a vvandring bird, and ſeldome found in this countrie: her Teirſelet is the Sacret; ſo that the Sacret is the male, and the Sacre is the female. Noble men deſirous to haue ſome ſport betwixt him and the Kite, do firſt make the Kite to ſtoope (for the Kite is woont in the Summer to keepe on high in the aire, to enioy the coolenеſſe of the aire, vvhich is greateſt in the middle region of the aire) by hauing ſome one or other Faulconer to carrie a ducke vpon his fiſt, hauing a certaine quantitie of a Fox taile hanging thereat, thus letting her fle in ſome plaine ground, they giue the Kite occaſion to ſtoope: for vvhen the Kite is aduiſed of the Ducke, he ſtoopeth by and by vnto the ground, and drawing neere vnto her, doth there keepe himſelfe without doing

The Sacre.

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: wherupon the Kite mounteth vpward, turning round therewithall as much as he can: and ſo the combate becommeth pleaſant to behold, eſpecially if it be in a plaine without trees, and that the aire be cleare, 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 Faulcon, for he is commonly called the Faulcon Lanier: he is commonly found in this countrey: and for that hee is of gentle conditions, and better endureth groſſe meates than any other Hawke, men are wont to content themſelues with him, cauſing him to ſerue their purpoſe euerie way. Faulconers chuſe thoſe Laniers that haue great heads, ſhort bills, blew and yellow feet, their fore-feathers of a mixture of black 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 Lanceret is the male, and hath not ſo bigge a bodie 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 kind of bird that keepeth his pearch more conſtantly. He abideth with vs in Winter, and is to be ſeene of vs at all times, contrarie to the faſhion of others, which keepe not in our countries but in the Summer time. Faulconers, when they would make the Lanier a forreſter, they put him in a lower roome, ſo dark, 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 heat him, that ſo he may afterward be bathed in pure vvine: and hauing dried him againe, they giue him to feede on, the braines of a Henne: then getting forward before day toward the place vvhere the game is, they caſt him off a good way from the place vvhere the Crane is, at ſuch time as it beginneth to be day: and though he take him not the firſt day, it is all one, for it will be as good in the daies following, and eſpecially from after mid Iuly, vntill towards the end of October. And yet after the mue, hee vvill bee better than before: but it is not good in the time of Winter.

Yet to ſpeake truth of the Lanier, he taketh more delight to prey vpon the Partridge, than vpon any other fowle whatſoeuer, becauſe the flight doth not mount much, to vvhich he hath no affection. He is of ſo ſtrong and good a conſtitution, that his greaſe ſeldome or neuer melteth to his hurt or preiudice: neither is he ſo fooliſhly ouer-free of courage, that he will hurt himſelfe with too much violence, or paines-taking. Whence it comes, that his owner can ſeldome ouer-flye him, no, though he flye him ſixe or ſeuen flights in a morning: and for this cauſe hee is called the Schollers Hawke, as being an excellent encourager of young Faulconers, and a bird on vvhich, vvithout danger, they may trie all needefull experiments.

Thus much of the manner of luring and reclaiming of Hawkes, 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 birds of the prey 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 ſort is the Goſhawke, the Sparrow-hawke, 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 end thereof a tenniſe-ball, or crooke of horne: for by theſe lures the Hawkes are allured, thinking them to be liue Hennes.

This

This is the deſtinction of our French Faulconers, yet generally it is not ſo receiued, for of other Faulconers, hawkes are deuided into theſe two kinds, long-winged hawkes, and ſhort-winged hawkes: the long-winged hawkes doe properly belong vnto the lure, and flie a loft, ſoaring in the aire, and from thence ſtooping downe and taking their pray: they are vpon their wings long before they either ſee or are ſeene of their pray, looking when either the ſpannyells ſhall ſpring the partridge from the ground, or the Faulconer with his poale beate the foule from the riuer: and of this ſort is the Eagle, the Gripe, the Gerfaulcon, the Faulcon, the Lanyer, the Hobie, and the Merline, ſome will intrude the Caſtrell, which in deed is a long-winged hawke, as touching his ſhape, but looking into the cowardlineſſe of his nature, he is far vnworthie to ranke in their ſocietie. The ſhort-winged hawkes do properlie belong to the fiſt, for from thence euer they flie, and thither alſo backe they are euer recalled. They neuer take their wing till they ſee their pray on wing before them, and then they make a maine after it, and flie it to the marke, where preſently they take a tree, hillocke, or ſome other ſtand, as neere the place as poſſibly they can, and there ſit till the ſpannyells come into the retriue: but the long-winged hawke neuer taketh ſtand at all, but flying about and about grathereth vp againe to her firſt pitch, and there expecteth the retriue. Now the ſhort-winged hawkes are the Goſhawke, the Terſſell of the Goſhawke, the Sparrow-hawke, and the Musket, ſome intrude the bauld Buzzard, and the Ring-tayle, but they as the Caſtrell are not worthie of the ranke, being naturally cowards, and of faint ſpirits, not daring to contend where there is any ſhew of reſiſtance.

Which be called long-winged hawks, and which be called ſhort-winged hawks.

Some of them begin not the game, but follow it being begun by the Hawkers, as we haue ſaid of the Eagle. To be briefe, hawks ſeeme not to differ, ſaue that all of them do not flie at all kind of birds and foule alike, for in deed euery one of them buckleth himſelfe vnto the bird, to the flying whereof hee is giuen and addicted, and not to others. And concerning all ſorts of flying and hawking, you may find a more ample treatiſe in the particular deſcription of the nature and properties of euery bird of pray which we haue made.

To lure.

Chap. XLV.

The taking of melodious ſinging Birds.

E haue ſpoken of the ſport that is made with birds of the pray called hawking, and now wee will enter into ſome ſpeech of taking of birds, which ſing melodiouſly with ſweet and pleaſant ſongs, wherewith the maſter of the farme may take his recreation and pleaſure, by hearing them ſing in his cloſes, parke, low-woods, and high-woods, or in his chamber window, or elſe ſhut vp in ſome cages or roomes made for the purpoſe to containe the ſubiect of ſuch pleaſure and delightſome melodie. And that we may not omit any thing, before we ſet downe any manner or way of the particular taking of ſuch birds, we will take a briefe view of the nature, feeding, and diſeaſes of the ſame. For it were but loſt labour to take the birds, if to the end that we may haue their ſweet and melodious ſongs a long time, wee knowe 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 mind not here to bring in the fabulous hiſtories touching the originall and breeding of the moſt part of them, which fantaſticall Poets haue inuented. I meane to reſt my ſelfe in this only perſuaſion, 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 all other creatures in the beginning of the creation of the world.

Chap.

CHAP. XLVI.

Of the Nightingale.

WE will make our choice of the Nightingale in the first place, which according to the iudgement and common consent of euery one, singeth the most sweetly and melodiously of all the rest: she is a bird sufficiently knowne, especially in the countrie of Italy, and is called of the Latins *Luscinia* or *Philomela*: she 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 cast his coole and temperate beames: from noone till Sun-set, she haunteth the coole places, fountaines, brookes, thicke hedges, and well shadowed places. True it is, that some of them do make their nests vpon the ground, vnder hedges, or amongst the waste grounds: and other some of them make it in a place somewhat raised, as vpon some greene and thicke grasse growne, clod of earth or butte. The number of their egges is vncertaine, for some of them lay foure, and some fiue, and those which nestle in Summer, lay (according to *Aristotle* his assertion) sometimes sixe or seuen. Now the Nightingale which you would keepe, must bee bred in the Spring; for how much the earlier bird she is, by so much will she 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 ouerrun of certaine cattle in August, the cold comming and finding her bare of feathers, causeth her to die, which thing happeneth vnto many of those which were bred in Summer. The young Nightingales must not be taken from their nests, vntill such time as they be feathered, and that they bee almost couered all ouer with the same, that so you may haue the lesse trouble in bringing of them vp, keeping them in a solitarie and by-place: their meate must be the heart of a Weather cleane and old. And you shall make of the fat of the skinne, which couereth the heart, and of certaine sinewes which are within the same, cut and shred small into little peeces, meate in manner of wormes, wherewith you shall feed them once euery houre, or more oftner if need require, giuing them at each seuerall time three gobbets: and thus you shall feed them in their nests as long as you can, and after they be growne vp, you shall put them in cages, made fit with little stickes and pearches, to the end they may begin of themselues to stand vpon their legs: and within the said cages, you must put mosse, hay, or chaffe, whereupon they may rest themselues, if so be they will not sit vpon the pearches, alwaies taking heed to keepe them cleane as much as may be. It will be requisite also, that their cage haue not any light but on one side onely, and for this cause, such as are most carefull, do hang their cage for the space of three whole parts of it with greene cloth. When you know that the Nightingale eateth alone, you shall mince her the heart of a Weather very small, after the manner of pie meate, and lay it vpon some small paper, in such places, as where you know that she may feed easily, and without any trouble, you shall vse this care and diligence vntill the bird hath got the custome to eate alone, not neglecting notwithstanding to giue her sometimes a day as much as a bird carrieth in her bill to be the surer and for the better: take order likewise least she die, that shee neuer want any of the foresaid meate, and withall that it stinke not, as it falleth out oftentimes in Summer. Besides the heart of the Weather, you may giue her diuers other sorts of meat, as the paste whereof we will speake hereafter for one: or in steed of that paste, take a new egge (for else it might cause some disease to breed in her, and bring her easily to her death) boile it hard, giue her the yelke to eate. It is true, that you must not giue it her oft, or not at all, except it be for want of their meat, because it is giuen to bind them in their bodies, and make them continue. You may likewise feed

The Nightingale his nest.

Meat for the Nightingale.

feed them with certaine wormes which are found in a doues neſt, or elſe in old flower of meale: but this muſt be done as ſeldome as may be, becauſe that ſuch meate ſhould rather be vnto her as phyſicke, than ordinarie food, as we ſhall ſay hereafter. If ſhee will not picke vp theſe meates, ſhe may haue them mingled amongſt her meate of a ſheepes heart, that ſo ſhe may learne to feed of whatſoeuer ſhall be ſet before her.

Chap. XLVII.

How Nightingales taken in the moneth of Auguſt muſt be fed, as alſo thoſe that are taken after they be throughgrowne.

SO ſoone as you haue taken the Nightingale in Auguſt, tie her wings preſently, that ſo ſhe may not beate her ſelfe in her cage, and by this means ſhee will grow tame ſooner, and more eaſily, and withall fall to eate, whereas otherwiſe ſhe will bee hard to tame: for ſeeing her ſelfe depriued of her libertie, ſhe becommeth not tame, till of a long time after. You ſhall ſhut her vp in a cage couered and wrapt round with paper, not hauing any ſticke for her to pearch vpon at all: in the meane time haue regard to feed her fiue or ſixe times euery day, and that very handſomely: ſometimes lay before her flies, or little wormes, which by their crauling will ſtir vp the bird to picke them, wherefore for the firſt time you ſhall giue her them aliue, whereas afterward you may cut and mince them: the third time you ſhall begin to feed her with a ſheepes heart ſhred ſmall, mingling amongſt the ſame of the wormes afore mentioned likewiſe minced and knodden together, for to accuſtome her to the ſaid heart. And if you perceiue that the bird doth not feed her ſelfe, neither yet deſire or ſeeke after any thing but wormes, you ſhall leaue off to giue her them mingled and tempered with the ſheepes heart by a little and little, and ſo offring her ſuch meate as is moſt eaſie, you ſhall woont her to eate of the ſaid heart without any mixture all alone: you may do the like with the paſte, if you perceiue that ſhe doth eate it willingly, which thing is eaſily diſcerned by any man of iudgement.

The manner of the keeping of the Nightingale taken in Auguſt

Chap. XLVIII.

To bring vp Nightingales that are taken in March.

IT is true, that the Nightingales which are taken after the firſt of March vnto the middeſt of Aprill are very fit to keepe and bring vp. When therefore you haue a Nightingale of this ſeaſon, you ſhall put her in a cage well wrapt about with paper, for feare that vpon the ſight of any man, ſhe ſhould beate her ſelfe and crie, as alſo to the end that ſhe may learne to eate alone. For to do this, you ſhall haue a veſſell of glaſſe like a cuppe without a foote, wherein you ſhall put ſeuen or eight ſmall wormes, and ſet them neere the bird, who ſeeing them craule within the glaſſe, will by and by for enuie at them fall of pecking them, wherefore you ſhall giue her them quicke for the firſt time. The ſecond time mince and cut them ſmall: and when you ſee that ſhe eateth well of ſuch meate, you ſhall take of a ſheepes heart well beat and cut, and mingle it with the ſaid wormes, and making thereof as it were a paſte, giue it her to eate. But if you perceiue, that in feeding, ſhe chuſe to eat of nothing but the wormes, leauing the heart, you ſhall indeuour your ſelfe to mixe it with all poſſible care and cunning, that ſo in eating ſhe may not chuſe but eate of both together, that is, both of the wormes and of the heart.

To bring vp Nightingales taken in March

And

And when ſhe is accuſtomed to eate of this mixture, you ſhall by little and little take away the wormes, and feed her only with the heart. Let it not be found ſtrange vnto you to ſee your Nightingale continue ſome daies without eating. For the cauſe why it ſo falleth out, is, becauſe they are grieued for hauing loſt their libertie, and thereupon continue ſome time without eating or feeding of any thing; ſome, three daies; others, fiue or ſixe daies; yea, eight or ten daies: whereat you muſt not maruel, neither yet leaue off to feed them. For there are ſome old ones, which though they bee hard to feede, become notwithſtanding better ſinging birds than any of the young ones.

If peraduenture the bird will not take any other thing than wormes, giue her a birds bill full foure times a day, and three or foure morſells at a time, and not any more, becauſe of digeſtion, and when ſhe ſhall haue accuſtomed to take the mixture of the heart with the wormes, giue her twice a day onely, that is to ſay, morning and euening, for to preſerue and maintaine her. And this is the order and courſe that yee ſhall take.

Chap. XLIX.

To know if the Nightingale begin to eate of her ſelfe, and whether ſhe will proue good, or no.

AS ſoone as the Nightingale beginneth to ſing, it is a moſt certaine token that ſhe eateth likewiſe alone. There are ſome which make not any kind of noiſe or ſound for the ſpace of eight daies; others of fifteene: and otherſome continue a whole moneth without ſinging. If they exceed this time without ſinging, it is to bee thought, that either they are females, or elſe that they will neuer be ought worth. They giue great hope of prouing perfect birds, which begin to ſing quickly, and vſe to eate quickly likewiſe by themſelues.

Chap. L.

How to order a Nightingale which eateth alone, and ſingeth.

WHen the Nightingale ſhall eate well by her ſelfe, and ſhall ſing, you ſhall take away by little and little the paper wherwith the cage was compaſſed about, euery day a little, in ſuch ſort, as that the bird may not perceiue it, couering the place againe from whence you ſhall take the paper, with ſome greene, inſomuch, as that all the paper being taken away, and the cage couered againe with greene leaues, you ſhall by little and little accuſtome her to ſee the light. For if that you doe otherwiſe, you will bee the cauſe of making her to looſe her ſinging, either for diſdaine, or for feare, which will not come to paſſe, if you order her as hath beene ſaid. Notwithſtanding that *Elian* in the thirteenth booke of his naturall hiſtorie ſaith, (following the aduice of *Ariſtotle*) That it is hard to bring that bird to ſinging, which is not taken in her owne neſt. Which opinion is found to be moſt falſe by ordinarie experience: for very often it is ſeene, that old Nightingales become more perfect and excellent than the other.

Chap. LI.

How the male Nightingales are knowne from the females.

MEns opinions and iudgements concerning Nightingales (as namely to know of whether sexe they be) are very diuers: for some distinguish the coke from the hen by their grosenesse, saying, that the cocke is the grosser bird: others are of mind that the cocke hath a greater eie: some say, that he hath a reddish taile: all which opinions I haue found to be far wide; for I haue had perfect good Nightingales, and that a great number of them that haue beene very small and little: as also hens with all those markes which are assigned vnto the cockes. Wherefore for a more sure and certaine signe, you shall rest vpon, and trust to that which followeth: That is to say, when you haue a Nightingale taken out of the nest, which shall begin to eate alone, without hauing of it cramd into her, and shall record diuers melodious notes from day to day, contenting herselfe therein some time with pleasing and beseeming noises, you may thereby assure your selfe that the same is a male. But vnto this, you shall adde certaine other notes: as namely, her quiet and peaceable abiding in her cage: her standing vpon one leg only, and to hold on the warbling of her brest, which continuance is not to be found in the hen: more than that, she goeth hopping and whistling vp and downe the cage with a noise and song that is very much interupted and short. I will not denie notwithstanding, but that sometimes the cocke may bee knowne from the hen by the markes which some haue set downe before: but this is that which I affirme, namely, that some are mightily deceiued by those markes, and that by their singing, the Nightingales taken in August are most certainely and clearely knowne and discerned. And as for those which are taken in March, the knowledge of them resteth, not onely in singing, but also in the lower parts of the sexe which the cockes doe put forth, but the hens doe not, for then is the time that birds doe couple together. These therefore are the most certaine euident and infallible arguments, whereunto you may trust and betake your selfe.

Nightingales male and female.

Chap. LII.

Of the King of birds, or the little King, otherwise called Robin-Redbreast.

YOu shall vnderstand that the little king, or king of birds is naturally very small, of a daintie tractable complexion, he singeth most sweetly, and is not much inferior in this respect vnto the Nightingale. He is oftentimes seene in Winter vpon the tops or roofes of houses, or vpon old ruines on that side that the Sunne shineth, and whereas the wind 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 heart, or of a calues heart minced, in all points as wee haue alreadie said, speaking of the Nightingale. He must be fed with a little atonce, and oft, by reason of his digestion, being carefull that hee take no cold, and especially in the night. For which cause, you shall put him in a cage, which hath some prettie prouision made like a little chamber, trimmed with red cloth, and made as it were a little hothouse, wherinto he may go, in the night season, and shun the cold all the whole yere. Now when he shall be vsed to be fed, you shall feed him with some heart well beaten, and small minced, & sometimes you shal giue him of the paste that is vsed to be giuen to Nightingales, which will do him no small good. And you shal giue him sometimes

The king of birds.

times flies to pecke for her greater ioy and ſpeedier taming, and herein you ſhall vſe great diligence.

Chap. LIII.

Of the Finch.

The Finch.

AMongſt the faireſt and moſt beautifull birds, yea, or rather the moſt beautifull of all, is the Finch, being no leſſe delightſome to the eie, than 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 thrice a yeare, that is to ſay, in May, Iune, and Auguſt. Some are of opinion, that thoſe which are bred in the moneth of Auguſt, are the beſt, and amongſt them thoſe which are of the third feather, or which haue mued thrice. Others affect thoſe moſt which haue their neſts amongſt the thornes, and haue certaine orange coloured feathers, which I my ſelfe do not miſlike: but I ſay further, (that whereas the blacke ones are commonly the pefecteſt and beſt birds of all) that there is not any one bettee or more perfect than another. It is true that thoſe which breed amongſt the thornes, are ſtouter and ſtronger birds than the other, and better made to ſing. They are vnlike the other, in as much as their feathers are ſomewhat more gray and 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.

Chap. LIIII.

How the Finch muſt be fed.

How to feed the Finch.

WHen you haue taken the Finch with her neſt, you ſhall feed them in maner as followeth: you ſhall firſt ſoften in the water of ſweet almonds, and afterward chaw 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 bird of the ſame, as ſhall be needfull. Afterward you ſhall worke the things aforeſaid in a morter together, and hauing tempered them with wate, 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 ſoure, and ſpoile the bird. When you haue fed the bird, you ſhall make a little ſticke like a tooth-picke, at the point whereof, you ſhal tie a little cotton, you ſhall wet this tooth-picke in water, and with the ſame, you ſhall waſh the birds bill, that ſo there cleaue not vnto, or hange thereabout any of the ſaid paſte, for cauſing of apoſtemes or vlcers, ſuch as wherewith ſhe might be kept from being able to open her bill, and ſo ſhe would eaſily die. Now when ſhe beginneth to eate alone, you ſhall giue vnto her in her little box a little bruiſed muſtard ſeed, and you ſhall renew it dayly, leaſt it ſhould become ranke, which would 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 bee carefull when they moute, to aire them and beſprinckle them with a little wine, ſetting them alſo a little in the Sunne twice a weeke.

Chap.

CHAP. LV.

How to feed the Spinke.

THe Spinke is a very beautifull and melodious bird, but all Spinks haue not one and the same tunes: for some of them sing after one fashion, and some after another, which needeth not to be further proued; for there is great varietie of them, and they are called after diuers sorts. Some bring them vp after the way, that is vsed in bringing vp of Finches. This bird hath this imperfection, namely, 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, & that for a day only, that so she may drinke thereof. And furthermore, make her a pearch of fig-tree wood, whereupon, and against which shee may rub her eie, the which will doe her much good: you shall giue her likewise to eate of the seeds of melons, the space of two or three daies, because they are cooling and wholesome. And if by this meanes, the Spinke do not mend and become better, giue her leaue to take her libertie in the fields, for shee will neuer be ought. *What meate the Spinke must haue.*

CHAP. LVI.

To relieue the diseases of the Finch and Nightingale.

WHen the Finch is in her mue, you shall comfort her, besprinckling her lightly with wine, that so she 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 shee 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 yeare abroad before, for those which are taken in the neast, doe mue within a moneth that they are put in: and this must be vnderstood in generall of all birds. And therefore to come to the particular: The Nightingale is troubled with fatnesse: and therefore shee must be purged twice a weeke, giuing her two or three vvormes of the Pigeon-house (as vvee haue taught before) for the space of fifteene daies. If she grow melancholike, you shall cut the bladder vvhich is aboue her rumpe, and put into her drinking-pot some Sugar-candie, and little lumps of paste or sugar, of the bignes of a nut. And if you see that she complaine her selfe of sicknesse, put into her vvater-pot some fixe chyres of Saffron, or thereabout, continuing therewithall to giue her the paste, and sometimes of a Sheepes heart. And if peraduenture shee still grow worse, giue her the yelke of an hard egge, and the vvhite also. Besides, the Nightingale hauing beene two or three yeares in the cage, becommeth gowtie: now when you shall perceiue it, annoint her feet vvith Butter, or else vvith Hennes grease, vvhich is a verie good remedie for to cure her. The Nightingale is likewise subiect to haue apostemes breaking out about her eyes and neb, for vvhich you shall likewise vse Butter and Hennes grease. It is meet also to make prouision for the Nightingale that is leane, vvhen you see necessitie that vway to require it, giuing her new figges to eate in their season, and at other times drie figges, vvell chewed: and afterward, you shall bring her vnto her ordinarie diet, and so you shall continue vvith her, to maintaine and keepe her. There happeneth also vnto the Nightingale another disease, called the straitnesse or strangling of the breast, vvhich commeth of hauing eaten *The Finch mouting.* *The Nightingale melancholicke.*

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 she is giuen oft to gape and open her bill. This disease commeth also of some sinew or thred of the sheeps heart, which was not minced small enough, and so thereby doth hang in her throat: wherefore you shall very handsomely open her bill, and take it from her with a pinne. You shall know it to bee this disease, when you see in her throat 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 kind of birds as eate sheeps hearts, or the hearts of any other beastes, are subiect to bee troubled with the disease aboue spoken of.

Chap. LVII.

To know the Canarie-bird from others, and what diseases she is subiect vnto.

YOu shall vnderstand that the Canarie-bird is brought from the Islands called the Canaries, and is of much account amongst vs, because shee 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 than any other birds doe: besides, she is of a lesse bodie, and hath a longer taile; in so much as the lesser they bee, the perfecter they be. On the contrarie, the great ones which sometimes turne their heads behind them, after the manner of fooles, and for that cause are called fooles, are the worst, and come from the Isles of *Palme virte*. Wherefore the nature of the Canarie-bird is not to bee 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 hennes grease about three times: then leauing off to doe any more vnto them, for the space of three daies, you shall then take them in hand againe, and open them gently, whereupon you shall see comming out of them thicke matter, like vnto an egs yelk. Which done, you shall annoint the said Impostumes very well with the foresaid grease, and thus you shall doe as often as they shall returne. This bird 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, beets, and such like. But and if for all these things, you see that the Canarie-bird doth not amend the better, you shall coole her with a little of the seed of melons, giuing it her to eate, and you shall put into her water-pot a little Sugar-candie, twice, or thereabout, and that so much as may endure and last one whole weeke: which may be done likewise when shee is in health twice a moneth.

The Canarie-bird in moute.

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 mout more properly. This course you shall likewise practise if she haue lice, to kill the vermine that would wast and consume her, that so she may be preserued.

The Canary-bird having lice.

CHAP. LVIII.

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 wil be melancholicke: ſhe hunteth the mountaines amongſt the Mirtle buſhes, Boxe-trees, Iuniper-trees, and Bay-trees: ſhe maketh her neſt of very ſmall roots, and other matter like vnto feathers. This bird bringeth forth young ones thrice a yeare. 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 than ordinarie, full of red veines, and her breaſt leane, and by ſeeing her ſpill and pecke muſtard-ſeed. This diſeaſe commeth to her by feeding vpon muſtard-ſeed, which is very 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 feed her before with muſtard-ſeed, you muſt giue her pannicke to eate, to coole her withall, or elſe the ſeed of melons well husked, and to continue the ſame meat the ſpace of three daies. Her ordinarie meate muſt be of the ſaid berbes. 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 be beſt to put theirin ſome beaten mortar, or ſome clay, to the end that feeding vpon it, ſhee 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 ſtraitneſſe or conuulſion of the breſt, wherefore being oppreſſed with this diſeaſe, you ſhall feed her with the ſeeds of melons, and in her water you ſhal ſteep ſome Sugar-candie, or elſe ſmall morſels of paſt. You ſhall put therein furthermore 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 leafe, or ſome other, vpon the day that you ſhall giue her pure water to drinke. The ſame remedie will ſerue to helpe her to her voice againe, if the bird were hoarſe, for thereby ſhee ſhall find 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 bee grieued with ſuch diſeaſes, as thoſe are, whereof we will now ſpeake.

CHAP. LIX.

Of diuers infirmities hapning to little cage birds, together with their remedies.

AMongſt other diſeaſes of birds, they are ſubiect eaſily to looſe their ſight, and become blind, if it bee not ſpeedily looked to, and eſpecially the Spinkes. Wherefore, for their better recouerie before they be quite blind, you ſhall take beets & draw the iuice out of them, mingling it with a little ſugar, & with this licour, you ſhall make her drinke for the ſpace of three daies, to be taken euery ſecond day, after the maner that we haue ſpoken of in the behalfe of the linnet. And you ſhall lay in her cage a ſticke of the wood of the fig-tree, 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 bee troubled with impoſtumes, you ſhall vſe the ſame remedies which we haue ſpoken of in the chapter of the Canarie bird.

Apoſtumes about birds.

Birds hauing their thigh or leg broken.

But in as much as it often falleth out, that birds do breake their legs, I haue thought it good to teach you the way to heale them: you ſhall giue them their meat 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 legge, becauſe by ſtirring thereof, they periſh and are ſpoiled. And this courſe will likewiſe ſerue when any bird hath her thigh broken. And I would aduertiſe you not to bind or ſwaddle it after the manner of the world, for ſo you ſhould cauſe ſome impoſtume to grow in the place where you did bind 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 themſelues, letting their legge or thigh which they ſhall haue broken remaine vntide and vnbound; for nature will heale it, and make it to grow together againe ſpeedily.

Chap. LX.

The manner how to ſerue ones turue of birdes, when he would take and catch them, and how to make them ſing.

NOtwithſtanding that all birds, except the Spinke, do ſing in Winter, as by name the Finch, the Linnet, the Misking, and other ſuch like: there are ſome found notwithſtanding, which being come out of the mue, do giue ouer their ſinging, becauſe of the ſaid mue. Wherefore from the beginning of May you ſhall purge them, which you would 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 third day following, you ſhall keepe them cloſe in the houſe, ſetting them vpon the ground, that ſo they may eate their meate vpon it, for the ſpace of ten 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 beets againe, and ſhut them vp in ſome ſquare cheſt in a darke and by-place. At the euening, you ſhal 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-ſeed euery eight day, and giuing them of the leaues of beets euery fourth day, and euery twentieth day of the iuice therof, eſpecially, vnto the ſpink, being the moſt ſubiect of all others to become blind. And that you may keepe them without lice, you muſt change their cage euery twentie daies, as alſo for another reaſon, which is becauſe of the filth and ſtench thereof, which might eaſily kill them. Thus you muſt ſtill be practiſing of theſe courſes, vnto the tenth of Auguſt, which terme being expired, you ſhall purge them a new 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 heed that they come not in the Sunne. Thus they will ſerue you very well to take and catch birds withall in September and October, and finally in all the reſt.

Chap.

Chap. LXI.

Of the Misken.

AMongst the little birds of the cage, the Misken is a of cheerefull nature, and singeth sweetly and delightsomely: she is exceeding pleasing vnto the sight. She breedeth thrice a yeare, first about the end 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 latter, more or lesse. Their nests are made of the most fine roots of herbs, and oftentimes of the leaues of reeds, according as the place will afford them where they nest. *The Misken.*

To feed the Misken taken out of her nest, you shall giue her of a sheepes heart minced very small, taking away the fat and sinewes, or else of a calues or heyfers heart, taking from it likewise the sinewes and the fat, all the rest being well beaten and shred, because of digestion. You shall feed her in her nest oftentimes, giuing her euery time a morsell or two, and no more, least they should die, by being too much filled. And when you shall perceiue that the Misken will eate alone, you shall hang at her cage a little of the said heart minced, not ceasing notwithstanding to feed her, by putting it in her mouth certain times euery day for more assurednesse. After she hath beene accustomed to eate alone, you may giue her some paste, feeding her therewithall onely, not giuing her any more heart, when she shall be accustomed thereto. Furthermore, if you haue any great desire that she should learne some proper songe, take the paines for to teach her, for it is a bird that is very easie to be taught. The Miskens, which are taken in birding, proue better and more perfect than the other. They are woont to continue without singing the space of ten daies after they are taken. You shal feed 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 bee made for the Nightingales, wherof we will speake hereafter: such as are fed with paste do liue longer than those which are fed with nothing but figs.

Chap. LXII.

Of the solitarie Sparrow.

BY nature the solitarie Sparrow is giuen to be melancholicke, she loueth by-places, and thereupon commeth her name, because they are very solitarie, as namely, the old decayed walls of churches, and other vninhabited places, as being far remoued from the companie of other birds: she is very iealous ouer her young ones: she maketh her nest in the holes and clefts of old buildings, and breedeth thrice a yeare: first, in Aprill: secondly, in May: and thirdly, in Iune.

If you will bring vp, and take any pleasure by the solitarie Sparrow, which haue taken young in their nests, you must chuse the greatest and biggest, namely such as are well couered with feathers, for else you shal neuer bring them to any proofe.

If peraduenture, when they are growne thus great, they will not open their bils, you shall open them, giuing them as much as a bird will hold in her bill three or foure times. But and if you perceiue that they will eate of themselues, you may put in their trough or meate-boxe, some of the foresaid heart, not giuing ouer notwithstanding, to put it into their mouthes, vntill such time as they can eate alone. But for such as open their bils, you shall feed them with the said heart, after that you haue *Meat for the solitarie sparrow.*

taken off the skinne round about, and the fat alſo, and that once euerie houre 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 do not, they will become lame, or elſe die in a ſmall time. Wherefore you ſhall do as hath beene ſaid, vntill they haue mouted, and afterward if you will keepe them in ſand, it will be very good: howbeit, I thinke it better to keepe them in hay all the Winter following. And whenas they ſhall eate of themſelues, their meate ſhall bee ſheepes heart 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.

Chap. LXIII.

Of the Throſtle.

What maner of bird the Throſtle is.

THe Throſtle is a bird knowne 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 middeſt thereof they leaue a hole, to the end that it may not fill with water through long and continuall raine, which might proue to the drowning of her young ones. They breed thrice a yeare, as other birds do, that is, in Aprill, May, and Iune.

What meate is good for the Throſtle.

The Throſtle taken in the neſt muſt be kept and fed in like manner as the ſolitarie Sparrow, as well whiles they are young and ſmall, as when they become old and great ones. Furthermore, you muſt know that the Throſtle is a great deale more delicate and fine than the ſolitarie ſparrow, and hath tenderer bones. So that to preſerue and keepe her aliue, ſhe muſt bee kept very neate and cleane. See that the Throſtle which you would bring vp and keepe, be a great one, and well feathered: for if you chuſe her great, and that ſhe begin to eate alone, and to mout, you ſhall bee the more able to bring her vp, and ſhe will proue the better.

Two ſorts of Throſtles.

You muſt note alſo, that there are three ſorts of Throſtles: thoſe which are beſt to bring vp for ſingers, are rather the little ones, than the others, 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 belliethan the eare.

Chap. LXIIII.

Of the Calander, Coridale, and Larke.

The Calander. The Coridale. The Larke.

COncerning the nature of the Calander, it is knowne by the effects, for ſhe is hard to tame, if ſhe be not taken in the neſt: ſhe wil be ſo vexed ſometimes as is maruellous, and a thing almoſt incredible, for being carried from one place to another; and in this vexation, ſhe will continue a whole moneth without ſinging: yea there haue ſome bin ſeene which did neuer ſing againe after, except they were brought backe to their accuſtomed place.

The Larke, notwithſtanding that ſhe is diſdainefull, doth not forſake her ſinging in ſuch caſes, aboue two or three daies, as doth in like maner the Coirdale. Theſe birds make their neſts vpon the ground, and in meadowes, and ſometimes amongſt the corne. Their neſts are made of the drie roots of herbs, and they breed thrice a yeare: firſt

first in the beginning of May, then in the beginnig 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 birds, as they are of one and the same nature, so they are fed and eate after one manner. For their ordinarie meate and feeding shall be no other than that we haue said to be good for the other birds: namely, the heart of a sheepe beaten and minced very small. If they eate not alone, you shall feed them very diligently in their nests, according as you shall see it needfull. Looke to it, that they continue not too long in their nests, for feare they should become lame. But after certaine daies put them in their cage strawed with sand, and there leaue them day and night. Being accustomed to eate alone, you shall giue them heart mingled with the graine, called of the Latines *Far*, or else with paste which is made for Nightingales, and therewith you shall feed them, till they become great ones, and stand vpon their feet. Afterward you shall scatter some of the aforesaid corne called *Far*, amongst the sand of the cage, to the end that the birdes may learne to know of themselues, the said corne amongst the sand, and to pecke it now and then, continuing notwithstanding to feed them, and to put into their mouthes of sheepes heart, according to your former custome. But when these birds begin to mout, you may giue them hemp-seed, 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 birds may sharpen and rub their bills, which is very apt to grow blunt with pecking: and to the end that they mae eate some of it also sometimes; for it is a thing that doth them much good, and serueth for to purge them.

Chap. LXV.

To make the paste which the Nightingales eate, being likewise good for the solitarie Sparrow, Miskins, Blacke-birds, Throstles, and many other birds.

PAste for the said birds (whereof we haue made mention before) must be made after this manner: take the meale of white Cich-pease, and boult it diligently with a boulter, as is vsed to be done with wheat meale, and in such quantitie, as you shall see to be needfull. For example: Let the quantitie of meale bee two poundes, with one pound of sweet almonds chosen and husked, which afterward you shall take and stampe very well, in such sort as is vsed when paste for march-paines is to be made. Herewithall, you must haue three ounces of fresh butter, which butter you shal put into a copper vessel tinned, and mixe therwithall 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 diligently whiles it is vpon the fire, with a wooden spoone, that so it may boile 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 stir it with a spoone, for feare the fire should make it burne too. When you haue thus done, you shall take a Colander made with such holes, as will let passe so much at once, as the birds (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 past which could not passe through the said Colander, so far forth as that the whole may come to be of a iust consistence. And for the keeping of it, you must poure honie aboue, handling and stirring of it cunningly, and so you shall be stored of prouision for sixe moneths.

Chap.

Chap. LXVI.

The way to know many and ſundrie maladies which doe happen vnto birds.

IT is apparant, that the diſeaſes of birds are diuers, and the diuerſitie thereof cauſeth diuers effects, and diuers ſignes, vvhich lying hidden, the diſeaſe continueth vnknowne, and ſo there is no adminiſtring of any thing, in as much as it is not knowne, whence it commeth, that they are in that caſe, nor what diſeaſe it is, nor what medicine or remedie 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 vvithin, and that no leſſe in the behalfe of birds, than generally of all other creatures. Wherefore I haue endeuoured my ſelfe, briefely to collect and gather into this Chapter, vvhatſoeuer hath beene deliuered ſcatteringly and diffuſedly elſewhere, in the touching of the infirmities and diſeaſes that are incident vnto birds, and of the knowledge thereof; for the benefit and inſtruction of ſuch as would know the diſeaſes whereunto ſuch birds as they delight in, and loue to keepe, are ſubiect.

Apoſtemes. Birds therefore are ſubiect, amongſt other diſeaſes, vnto impoſtumes, vvhich doe happen vnto them, and appeare in the head of a yellow colour, as great as a Hempſeed, yea, ſometimes as bigge as a Peaſe: a diſeaſe commonly haunting all birds, eſpecially thoſe which are of a hot complexion.

The Pthiſicke or conſumption. Another kind of diſeaſe with which birds are troubled, is called the ſubtle diſeaſe, *Pthiſis*: for the bird that is troubled with this diſeaſe, ſwelleth in her bodie, as hauing it euerie where beſet with veines full of bloud, the breaſt notwithſtanding being thin and leane: and furthermore, the bird ſo diſeaſed, doth nothing but take, caſt away, or ouer-turne her meat and Hempe-ſeed.

The gowt. The gowt is another ſort of diſeaſe common vnto birds, and vexing them ſore: for when as they are diſeaſed thereof, they can neither ſtirre nor ſtand, becauſe of the paine they doe endure. This diſeaſe is knowne by the roughneſſe of their legges and feet.

Difficultie of breathing. The difficultie of breathing, or hard drawing of their breath, troubleth them alſo: and it is knowne by their hoarſeneſſe, ſo as that they cannot vtter their tunes: or if they doe, yet very harſhly and imperfectly: or elſe by their not ſaying any thing at all. You ſhall lay your hand vpon her breaſt, and by that alſo you ſhall perceiue it: for you ſhall feele an extraordinarie beating, as ſhewing it ſelfe to come from ſome oppreſſion and great difficultie: by all which you may gather for certaine, that ſhe is infected with this diſeaſe.

Cries and lamentable noiſes Oftentimes it likewiſe commeth to paſſe, that they crie and caſt forth lamentable noiſes, complaining themſelues, vvhich declareth euidently, that they haue the diſeaſe called *Aſthma*, or ſhortneſſe of breath.

Blindneſſe. Birds alſo oftentimes fall blind: vvhich, if it be not quickly helped, they vvill neuer be cured: and this diſeaſe is perceiued by the trickling of teares from their eyes, and by certaine feathers about their eyes, vvhich doe curle and crooke by turning in againe.

The falling ſickneſſe. The falling ſickneſſe is likewiſe incident vnto birds: vvhereof they are ſcarce euer cured: for there is no other remedie for it, but to keepe the bird vvhich you bring vp, from the Sunne in Summer: if ſhe eſcape the firſt time, you muſt cut the nailes of her feet, and beſprinkle her well with good wine: purge her oft.

The Pip. Some ſay, That birds are ſubiect to the diſeaſe called the Pip: vvhich is falſe: for the diſeaſe which they call the Pip, is not the Pip in effect, but another diſeaſe, which

groweth

groweth in the bills of birds, for which it is good to vse this remedie: Take the seed of Melons, and steeping them in pure water, make them to drinke thereof three or foure daies, and perceiuing the bird to grow better, you shall giue her a little fine Sugar, tempered likewise with sugred water.

It is hard to know when the bird hath the disease of the rumpe: and for my part I cannot tell how to giue you a better signe thereof, than 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 do 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 rumpe.*

Besides the diseases before named, birds haue sometimes the flux of the belly: which is known, by their making of their dung more thinne and liquid than ordinarily they were wont, 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 oyle: And in stead of Hempe-seed, you shall giue her the seedes of Melons for the space of two daies. But and if these be birds which vse not to eate any Hempe-seed, but heart, or paste, deferre not to take it from her, and in place thereof to giue her hard rosted egges, in such sort as we haue said before. *The flux of the belly.*

Chap. LXVII.

Of the diseases that happen particularly to euerie particular sort of birds.

As concerning old Nightingales of the cage, they are subiect vnto gowts and conuulsions in the breast: vnto which diseases the solitarie Sparrow is also subiect, besides the falling sicknesse, or giddinesse of the head. *The diseases proper to the Nightingale, and to these birds following.*

The Linnet is troubled with the subtile, or close and secret disease, more than any other bird, as also with hot apostemes, conuulsions, and gowts. *Linnet.*

The Finch is wont to haue impostumes, and the subtile disease. *Finch.*

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 blind. *Siskin.*

The Spinke is more subiect to blindnesse than all the rest: and when she is once ouer-runne of this disease, she is no more worth any thing, for she will euer and anon fall into it againe of set purpose. *Spinke.*

Two only diseases doe voluntarily molest the Goldfinch, that is, the subtile disease, caused through old age, and impostumes, proceeding of the eating of Hemp-seed. *Goldfinch.*

The same two diseases we find to befall the Canarie bird of Spaine: howbeit, the subtile disease is seldome times found to trouble her: she is also subiect to the conuulsion and oppression of the breast, because of her excessiue naturall heat. The Miskin is more subiect vnto the gowt than any bird that is. The solitarie Sparrow is haunted with impostumes and melancholie, which causeth her often to die. The Corydale falleth blind sometimes, and sometimes she is troubled with the subtile disease. As it also happeneth vnto the other kind of Lark, which hath no crest vpon her head. The Calander likewise is subiect vnto the subtile disease, apostemes, gowts: and that which is worse, namely, to become quickly blind. The bird, called in Latine *Thraupis*, is likewise very subiect vnto impostumes, and oftentimes dieth of fat. The strongest and stoutest bird that can be, is the Blacke-bird, wherein I cannot find any disease to kill her, except old age, which is the common maladie deuouring all mortall things. Fat and *Canarie bird. Corydale. Larke. Calander. Blacke-bird.*

Throstle. and impostumes doe sometimes hurt the Throstle, as also the disease of the rumpe, which is likewise common to all birds that are kept in the cage.

Chap. LXVIII.

Birds are to be purged, at what time, and how oft in the yere.

NIghtingales and all other kind of birds which eate heart and paste, must be purged at the least once euery moneth with two or three wormes out of the pigeon house euery time: two daies after, put into her water-pot the quantitie of a nut, of fine sugar, and when her voice faileth her, you must put into the said water, some licoras, as namely, so much as may giue some taste to the water, and this will cleere her voice very exceedingly. The foretaid purgation is very needfull when they are about to moute. The cage must neuer be without earth or sand. She must be sprinkled ouer with wine at the least twice a week, to further her in her mouting, and for the better preseruing of her life, setting her afterward in the Sunne, til 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 reioice her.

Chap. LXIX.

To purge birds that feed vpon Hempe-seed.

BIrds that eate Hempe-seede, shal take for to purge them the seedes of melons husked, and herbes (as you shall thinke good) namely Succorie, Beets, Lettuses, Scariole, and Mercury, which is principally good for the Linnet, but giue them what herbs you please; for they are very good to giue to birds to purge them: yea, and though they haue no need to be purged, yet you must not cease continually to be giuing of them some, giuing then furthermore, amongst, either earth or drie mortar in their cage, to the end they may eate of it, or dust themselues in it at their pleasure and conuenient time, which is very wholesome for them: and likewise you must giue them some Sugar, as you haue beene taught before. You shall perceiue when the bird would moute by the feathers in her cage, and then you shall besprinkle her lightly with wine, as wee haue already spoken before. Some birds mout in the end of Iulie, and others in the end of August. Those which are taken in the nest begin to mout as soone as they be bred, and their mouting continueth a moneth. You shall besprinkle them with wine at the least twice a weeke, to cause them to mout the sooner.

Chap. LXX.

To know how long the birds liue.

IF any man desire to know how long these birds liue, let him know that amongst Nightingales, some liue three yeares, some fiue, and others vnto eight, and sing vntill that time, but from that time forward they are not any longer in perfection, but decline by little and little. It hath bin seene that Nightingales haue liued till they haue been fifteene yeres old, and continued singing euery day 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

The Miskins being subiect to the gowt, doe liue but a short time, as three or foure yeares at the most. The solitarie Sparrowes liue in good state and account for the space of fiue yeares: many of them die of the subtile disease, some of impostumes, others of gowts, and some young ones of the falling sicknesse. Finches liue tenne, yea, fifteene, and twentie yeares, more or lesse, according vnto their complexion: and they are alwaies in good plight, singing vnto the last day of their life. The Linnet is short-liued, because she is subiect vnto the subtile disease: some liue two yeares, some three, and some fiue, according to their manner of ordering and gouerning. The Siskins liue, some fiue, others eight yeares, by reason of their good complexion, and because they are not so subiect vnto diseases as other birds. The Spinke liueth but a short time, because they are subiect to blindnesse: some liue one yeare, some two, others till foure: many of them die of the falling sickresse, because they haue beene set forth into the Sunne in the Summer time, vvhereby the heat hath searched and penetrated into their braine. The Calanders, Corydales, and Larkes, liue alike long, the one sort and the other, as three or fiue yeares. Some Calanders doe liue longer than the Corydales: but she groweth melancholie, being remoued out of one place into another. The Canarie bird liueth long, as fiue, tenne, and fifteene yeares: yea, there haue some beene seene to liue twentie yeares, continuing alwaies good. The Thraupis is of the continuance of six yeares, or thereabout, according as she is kept better or worse. It is a bird that is not much regarded: for her singing is but irkesome and tedious: some take pleasure in it, and some doe not.

The life of the Miskin, the solitarie Sparrow, and the Finch.

The life of the Linnet, the Siskin, and the Spinke.

The life of the Calander, Corydale, and Larke.

The life of the Canarie bird, and of the Thraupis.

Chap. LXXI.

The manner of taking small birds, as well those which sing, as those which are for to eat: as also all other sorts of small birds.

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 crie, counterfeiting 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 wings or legges, and then the birds will flocke about her to aid her, thinking, that the Owle hath caught her: and hauing set lime-twigges or lime-bushes vpon the branches of the trees, the birds that shall come to succour her, and lighting, will be limed.

To take birds with a chirp or call.

To take Spinkes as they are going, that is to say, in the place where many Spinkes are wont to passe, you must enuiron their trees (after they haue beene cut and planted in a plaine ground, one distant from another some small distance, as three foot, or thereabout) with leaues below, as if it were a lodge, and amongst them lay a coard, made fast vnto a bough, and carried vp on the other side with some prop: this shall be held by a man placed a good way off, and on the said bough shall be hanged and made fast two or three Spinkes: then you must set the said trees verie choicely and thinne with lime-twigges, and some distance off from thence, two or three cages, wherein there shall be some Spinkes, for to call to such flocks as shall come flying that way, which perceiuing those in the cages, as also those which are hanged vpon the sticke, will lime themselues on the trees.

To take birds as they are feeding, or going.

To take Partridges with the Tonnell, or Tombrell, there must a man be placed behind 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 hee shall ouer-cast the nets vpon the Partridges. This kind of taking of Partridges is now adaies forbidden.

To take birds with the Tonnell.

To

To take birds with fire.

To take Partridges and Woodcocks in the night with fire, you muſt light a match of old drie vvoollen clouts, dipt in melted tallow, wrapping them vp afterward together in forme of a torch, as thicke as ones arme, and of the length of a foot: then you muſt aſtoniſh and amaze the Partridges in ſuch ſort, as that they may caſt themſelues into the nets, vvherewith they ſhall be 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, Corne or Millet, ſteept in the lees of good vvine, and the iuice of Hemlock, and afterward drie them, whereof when the birds ſhall haue eaten, they will 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 butts, it is requiſite, that he that ſhooteth, ſhould haue double ſhafts, forked before, vvhen hee vvould kill Geeſe, or other great birds, and thoſe verie ſharpe euerie vvhere, to the end they may cut off the vving, or the necke, vvhere they ſhall touch them: for to ſtrike them vvith the common ſhaft, vvould not ſo hurt the bird, as that ſhe might be conſtrained to abide in the place, for ſhee vvould flie away, notwithſtanding that ſhe vvere hurt or ſhot through, although ſhee vvould die thereof in another place.

The end of the ſeuenth and laſt Booke of the Countrey Houſe.

FINIS.

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