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J. J. de la Roche de la Roche en Earl Fitzwilliam

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THE
WHOLE ART
AND TRADE
OF
HUSBANDRY,
CONTAINED
In foure Bookes.

Viz:

- I. Of Earable-ground , Tillage , and Pasture.
 - II. Of Gardens, Orchards, and Woods.
 - III. Of Feeding, Breeding, and Curing of all manner of Cattell.
 - IIII. Of Poultrye, Fowle, Fish, and Bees.
-

Enlarged by BARNABY GOOGE, *Esquire.*

GENESIS. 3. 19.

In the sweat of thy face shalt thou eate thy bread, till thou be turned againe into the ground, for out of it wast thou taken: yea. dust thou art, and to dust shalt thou returne.

LONDON:

Printed by T. S. for *Richard More*, and are to be
sould at his Shop in S. Dunstanes Church-
yard in Fleetstreet. 1614.

THE
WHOLE
AND TRADE

IN
LONDON

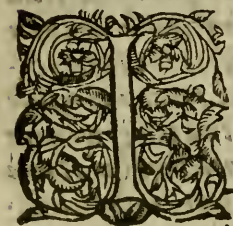
- I. Of the ...
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- IV. Of the ...

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TO THE RIGHT
VVorshipfull, his very good friend,
Sir William Fitz-Williams, Knight.



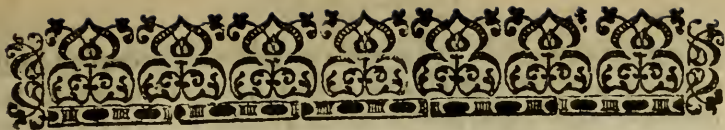
N such as haue painefully and faithfully of long time serued their Prince and Countrey abroad, doe most of all others deserue, beside their condigne reward, the benefit of a quiet and contented life at home, I know no man (good Sir William Fitz-Williams) that of right may better challenge it, then your selfe: who for the long time of your painefull service, the trustie discharging of the Treasurership of Ireland, and your worthie gouernement, while it pleased her most excellent Maiestie to appoint you for the sayd Realme her highnesse Deputie) haue so behaued your selfe, as euen your very enemies (whereof I know you had good store) haue beene forced to giue you, will they will they, your iust deserued commendation. I leaue to remember your sundry and troublesome trauailes, your Gentlemanly minde, alwayes unwearied and unmated with whatsoever perill or hazard happened: I passe ouer (because I know you delight not in hearing your prayes) that Honorable, and worthy for euer to be Chronicled, charge giuen upon the Oneale, at Monham, in the rescue of your miserably distressed and slaughtered companions, and Countrymen, of which there be sundry yet remaining, that will attribute the hauing of their lines,

The Preface.

(next unto God) to the prosperous successe of your valiant enterprise: neither hath this your loyall seruice to your Prince and Countrie at any time beene accompanied without a feruent and zealous affection towards the Almighty, the chiefest and onely beautie of all mans actions. Since thus (as I sayd) you may iustly challenge for the good seruice you haue done in your youth, a place and time of rest and quietnesse in your greater yeeres, and that there is, in my fancie, no life so quiet, so acceptable to God, and pleasant to an honest minde, as is the life of the Countrie, where a man, withdrawing himselfe from the miseries, vanities, and vexations of this foolish and now too too much dozing world, may giue himselfe to the sweet contemplation of God, and his workes, and the profit and reliefe of his poore distressed neighbour, to which two things we were chiefly created, I thought it good to send you here (as a token and a testimonie of my thankfull mind, for your sundry friendships and courtesies shewed vnto me) a rude draught of the order and manner of the said Countrie life, which you may vse (if it please you) for your recreation. And afterwards (if so you thinke it meet) publish vnder your protection, to the commonitie and benefit of others. Fare you well: from Kingstone.

Your assured louing friend,

BARNABY GOOSE.



The Epistle to the Reader.

Have thought it meet (good Reader) for thy further profit and pleasure, to put into English, these foure Bookes of Husbandry, collected and set forth, by Master *Conrade Heresbatch*, a great and a learned Counciller of the Duke of *Glouces*: not thinking it reason, though I haue altered and increased his worke, with mine owne readings and obseruations, ioyned with the experience of sundry my friends, to take from him (as diuers in the like case haue done) the honour and glory of his owne trauaile: Neither is it my minde, that this either his doings, or mine, should deface, or any wayes darken the good enterprife, or painfull trauailes of such our Countrymen of England, as haue plentifully written of this matter: but alwayes haue, and do giue them the reuerence and honour due to so vertuous, and well disposed Gentlemen, namely, Master *Fitzherbert*, and Master *Tusser*: vvhose vvorke may, in my fancie, without any presumption, compare with any, either *Varro*, *Columella*, or *Palladius* of *Rome*. You haue here set downe before you, not onely the rules and practises of the olde auncient husbands, as well Greekes as Latines, whose very orders (for the most part) at this day wee obserue, and from whom (if we will confesse the truth) wee haue borrowed the best knowledge and skill, that our skilfullest husbands haue: but also haue ioyned heerewithall, the experience and husbandry of our owne husbands of England, as farre as eyther mine owne obseruations, or the experience of sundry my friends would suffer mee. And although I haue delt with many, both Graines, Plants, and Trees, that are yet strangers, and vnknown vnto vs, I doe no whit doubt, but that vvith good diligence and Husbandry, they

To the Reader.

they may in shorttime so be denized and made acquainted with our soyle, as they will prosper as vvell as the old Inhabitants. It is not many ages agone, since both the Peach, the Pistace, the Pine, the Cypresse, the Walnut, the Almond, the Chery, the Figge, the Abricock, the Muske Rose, and a great sort of others, both Trees and Plants, being some Persians, some Scythians, some Armenians, some Italians, some French, all strangers and aliants, were brought in as nouelties amongst vs, that doe now most of them as vvell, yea, and some of them better, being planted amongst vs in England, then if they vvere at home. I haue also bene carefull about the planting and ordering of the Vine, (though some of my friends would haue had it omitted, as altogether impertinent to our countrie: because I am fully perswaded if diligence, and good husbandrie might be vsed) wee might haue a reasonable good Wine growing in many places of this Realme: as vndoubtedly we had immediately after the Conquest, till partly by slothfulnesse, not liking any thing long that is painefull, partly by Ciuill discord long continuing it was left, and so with time lost, as appeareth by a number of places in this Realme, that keepe still the name of Vineyards: and vpon many Cliffes and Hilles are yet to be seene the rootes, and olde remaines of Vines. There is besides *Notingham* an auncient house called *Chimwell*, in vvhich house remaineth yet as an auncient monument in a great vwindow of glasse, the whole order of planting, proyning, stamping, and pressing of Vines. Besides, there is yet also growing an olde Vine, that yeelds a Grape sufficient to make a right good Wine, as vvas lately produced by a Gentlewoman in the sayd House. There hath moreover good experience of late yeeres bene made, by two Noble and Honourable Barons of this Realme, the Lord *Villsams* of *Tame*, and the Lord *Cobham*, vvhich both had growing about their houses as good Vines, as are in many places of France. And if they answere not in all points euery mans expectation, the fault is rather to be impured to the malice & disdaine peradventure of the Frenchmen that kept them, then to any ill disposition, or fault of the soyle. For vvhich haue you in any place better, or pleasanter Wines, then about *Backrach*, *Colin*, *Andernach*, and diuers other places of Germanie, that haue in manner the selfe-same latitude and disposition

To the Reader.

sition of the Heauens that we haue ? Beside, that the nearenesse to the South, is not altogether the causer of good Wines, appeareth in that you haue about Orleans, great store of good and excellent Wine : whereas, if you goe to *Burges*, two dayes iourney farther to the South, you shall finde a Wine not worth the drinking. The like is (as I haue heard reported by Master *D. Dale*, Embassadour for his Maiestie in these parts) of *Paris*, and *Barleduke*, the Towne being Southward, vvith noughtie Wines : the other a great wayes farther to the North, vvith as good Wines as may be. But admit *England* would yeeld none so strong and pleasant Wines as are desired (as I am fully perswaded it would) yet is it worth the triall and trauaile to haue Wines of our owne, though they be the smaller : and therefore I thought it not meet to leaue out of my booke the ordering and trimming of Vines. It remaineth now (good Reader) that thou take in good part my trauaile and good vvill, vvich vvere chiefly employed to the pleasuring and benefiting of thee, and not to quarrell vvith mee, as is the manner of the most sort, for euery fault and ouersight that hath escaped my hands, nor to looke for any curious, or well measured stile, vvherewith I am not able to satisfie thee, and though I vvere, yet vvere it neither for the matter nor method necessary. And therefore I trust thou wilt accept it as it is, specially considering, that I neither had leisure, nor quietnesse at the doing of it, neither after the doing had euer any time to ouer looke it, but was driuen to deliuer it to the Printer, as I first wrote it : neither was I priuy to the printing, till such time as it was finished. And therefore (though there be faults, and great faults in it) I am not to be charged with them, that if time, or opportunitie had serued, would not haue suffered them.

Farewell.

A Table of all such principall matters and
words as are contained in this Booke, wherein the first
side of the leafe is signified by *a.* and the
second by *b.*

A

A Blaqueation of vines.	78.b
Affrica, her fertilitie.	18.a
Agulus indged happy by Apollo.	7.a
Ambition to be moderated.	1.b
Almond trec.	90.a
Annise.	54.b
Angelica.	65.b
Angelica, the vertues.	181.a
Anthony the Saint, his answere.	4.a
Armaracia.	56.a
Abrecocks.	92.b
Aruncus, what.	136.b
Asse, her foaling.	118.b
Asse, the stallion.	119.b
Asse, his remedie for halting.	118.b
Asse, his use.	118.a
Asparagus, the berries.	51.b
Asparagus.	51.a
Axel trees the best wood.	103.b
Ashes for doung.	19.b
Ashe groue.	98.a
Ashe tree.	101.a
Apple trees, how to set.	83.b
Apples, their kindes.	83.b
Apple lofts.	12.a
Apples, their ripenesse.	84.b

Amber.

105.b

Aucns, the vertues.

182.b

B

<i>Basyll.</i>	62.b
<i>Barnacles growing out of trees.</i>	157.a
<i>Bees delight in new hines.</i>	172.a
<i>Bees lost, their repairing.</i>	175.a
<i>Bees tame.</i>	168.
<i>Bees best to be bought, and how.</i>	167.b
<i>Bees clustring, what betokeneth.</i>	171.b
<i>Bees bred of a Steere.</i>	176.b
<i>Bees how to be carried.</i>	168.a
<i>Bees what angreth them.</i>	173.b
<i>Bees wilde.</i>	168.a
<i>Bees expelled by smoke.</i>	168.b
<i>Bees Muses birds.</i>	165.a
<i>Bees, plants pleasing them.</i>	169.b
<i>Bees, plants hurtfull to them.</i>	170.a
<i>Bees to reniue.</i>	176.b
<i>Bees if they breede not.</i>	178.a
<i>Bees wilde, their taking.</i>	168.a
<i>Bees foresbewers of weather.</i>	166.a
<i>Bees sit.</i>	175.b
<i>Bees not to be remoned in winter.</i>	
	179.b
<i>Bees in hollow trees.</i>	168.b
<i>Bees how to order.</i>	178.b
	<i>Bees,</i>

The Table.

<i>Bees must stand neere the Master.</i>	169.a	<i>Bees harvest double.</i>	174.a
<i>Bees, faire water.</i>	169.b	<i>Bees diseases, their preserving.</i>	177.b
<i>Bees attendance all the yeere.</i>	178.b	<i>Bees, when they begin to labour.</i>	171.a
<i>Bees hunted by hornets.</i>	178.b	<i>Bees rest.</i>	166.a
<i>Bees hurt by Echo.</i>	178.b	<i>Bee the old master, what to doe.</i>	176.a
<i>Bees, smoke good for them.</i>	178.b	<i>Bee the master, diuers in one hieue.</i>	172.b
<i>Bees, to keepe from Butterflies.</i>	179.a	<i>Bees, their pallaces.</i>	165.a
<i>Bees, what hurts them.</i>	169.a	<i>Bees, their government.</i>	165.a
<i>Bees, what doth them good.</i>	178.b	<i>Bees the Master, his making.</i>	167.b
<i>Bees, hurt Elme flowres.</i>	177.b	<i>Bees common wealth.</i>	165.a
<i>Bees, hurt by spurge.</i>	177.b	<i>Bee the Master restrained.</i>	172.b
<i>Bees, better the Valley than the Hill.</i>	169.a	<i>Bees to make.</i>	175.a
<i>Bees to heale their diseases.</i>	177.b	<i>Bees their standing.</i>	166.b
<i>Bees their age.</i>	176.a	<i>Bees remoued for foode.</i>	180.a
<i>Bees cleansing the hieues.</i>	178.b	<i>Boare and Bull common.</i>	122.b
<i>Bees sicknesse, the tokens.</i>	177.b	<i>Beets.</i>	54.b
<i>Bees idle, their punishment.</i>	166.b	<i>Betony.</i>	183.a
<i>Bees harvest or druing.</i>	173.a	<i>Betony, the vertues.</i>	183.a.b
<i>Bees to drue, what smoake.</i>	173.b	<i>Birch.</i>	97.a & 101.a
<i>Bees meat.</i>	169.b	<i>Bizontes.</i>	130.a
<i>Bees seuerall labours.</i>	166.b. & 167.a	<i>Borrag.</i>	58.b
<i>Bees, the Master, where to seeke.</i>	172.b. & 173.a	<i>Bullockes, their fatting.</i>	123.b
<i>Bees swarming time.</i>	188.b	<i>Bullockes, how to buy.</i>	121.a. & b.
<i>Bees hatching.</i>	176.b	<i>Bullockes, their shape.</i>	121.a
<i>Bees their watch.</i>	166.a	<i>Buffes.</i>	130.a
<i>Bees, the taking of the coames.</i>	171.b	<i>Bullockes, their foode.</i>	123.b
<i>Bees, the drones,</i>	167.a	<i>Bullockes halting, remedie.</i>	126.b
<i>Bees, roming away, to restraine.</i>	171.b	<i>Bullockes ill digestion.</i>	125.b
<i>Bees, roming away, the signes.</i>	172.a	<i>Bullocks bitten with a mad dog.</i>	127.a
<i>Bees, their industrie.</i>	165.a	<i>Bullockes hidebound.</i>	127.b. 129.a
<i>Bees, how to finde.</i>	168.b	<i>Bullockes feuer, the cure.</i>	126.b
<i>Bees their winter food.</i>	171.b	<i>Bullockes ache in the synewes.</i>	127.a
<i>Bees angry, to appease.</i>	174.a	<i>Bullockes mangers.</i>	123.a
<i>Bees, the breeders.</i>	167.a	<i>Bullockes their hoozes worne.</i>	127.a
		<i>Bullockes, the flix.</i>	126.a
		<i>Bullockes, to preferne them.</i>	123.a
		<i>Bullockes mangie.</i>	127.a

Bullockes.

The Table.

<i>Bullockes fores mattring.</i>	127.a	<i>Cammelingendring with Bores.</i>	120.a
<i>Bullockes heele, hurt.</i>	127.a	<i>Corne fields and Vineyard compared.</i>	74.b
<i>Bullockes hoofe, hurt.</i>	127.a	<i>Caution in buying of land.</i>	44.a
<i>Bullockes watring.</i>	124.a	<i>S. Tho. Chalener.</i>	115.b
<i>Bullockes pasturing.</i>	124.a	<i>Courtiers, their gorgeous miserie.</i>	7.a
<i>Bullocke, the taile.</i>	126.a	<i>Colworts, the seede for oyle.</i>	53.b
<i>Bullocke the Cough.</i>	126.a	<i>Colworts crompted.</i>	54.a
<i>Bullocke how to fetter.</i>	123.b	<i>Chalke used for doung.</i>	19.b
<i>Bullocke, the murrine.</i>	124.b	<i>Candels of trees.</i>	104.a
<i>Bullockes lung-sicke.</i>	128.a	<i>Coales of wilde Oake.</i>	103.a
<i>Bullockes, the yellowes.</i>	128.b	<i>Coales of Juniper.</i>	102.b
<i>Bullockes liuer sicke.</i>	128.b	<i>Coales, what wood to be made of.</i>	104.a
<i>Bullockes, the blaine.</i>	129.a	<i>Carotes.</i>	56.b
<i>Bullockes the sprenges.</i>	129.a	<i>Cheese of huge bignesse.</i>	139.b
<i>Bullockes, the staggers and the dasie.</i>	129.a	<i>Cheese parmasin.</i>	139.b
<i>Bullockes pissing blood, the panteyes,</i>		<i>Cheese not to be made of beastes that</i>	
<i>raynt, and gargise.</i>	129.a	<i>haue more then foure paps.</i>	139.b
<i>Bullockes, for all diseases.</i>	129.b	<i>Chestnuts.</i>	90.b
<i>Blackthorne flowres, the vertues.</i>	180.b	<i>Catoes answere touching breeding.</i>	106.b
<i>Balme, the vertues.</i>	180.b	<i>Catoes Oracle.</i>	14.b
<i>Buglosse.</i>	58.b	<i>Cabbage.</i>	53.b
<i>Beane, the straw, and the offall.</i>	31.b	<i>Cyrons.</i>	87.b
<i>Beech wheat.</i>	29.b	<i>Cordum, a kinde of Hay.</i>	43.b
<i>Beech groue.</i>	96.a	<i>Coryander.</i>	54.b
<i>Beech.</i>	97.a	<i>Cornell tree.</i>	88.b
<i>Bull, common.</i>	121.b	<i>Cresinus, his diligence.</i>	44.a
<i>Bull, his making.</i>	121.b	<i>Cucumber.</i>	59.b
<i>Birdlime, the making.</i>	105.a	<i>Cumyn.</i>	54.b
<i>Baytree.</i>	89.b	<i>Cypresse.</i>	102.b
		<i>Cyrus King, nurced by Skepheards.</i>	107.a
<i>Cammell of Arabie.</i>	120.a	<i>Cytisus.</i>	36.a
<i>Cammell of Bactria.</i>	120.a	<i>Castrill.</i>	161.b
<i>Cammell, her foaling.</i>	120.a	<i>Cattell, their breaking.</i>	123.a
<i>Cammelleopard.</i>	120.b		
<i>Cammels ingender backward.</i>	120.a		

C

The Table.

<i>Cattell keeping and tyllage, their fellowship.</i>	106.a	<i>Dogges, their kindes.</i>	146.a
<i>Cattell keeping, the antiquitie and worthinesse.</i>	106.b 107.a	<i>Dogges kind to be regarded.</i>	146.b
<i>Coltes their handling.</i>	112.b	<i>Dogges of wonderfull price.</i>	145.b
<i>Corke tree.</i>	103.a	<i>Dogges diseases, and remedies.</i>	148.a
<i>Corke groue.</i>	96.a & b	<i>Dogges names.</i>	147.b
<i>Corne-floore.</i>	12.a	<i>Dogges, their lytures.</i>	147.a
<i>Cow barraine.</i>	121.a	<i>Douehouse, building.</i>	161.a
<i>Cow, her age.</i>	121.a	<i>Doues, to keepe from the Hawke.</i>	161.b
<i>Cow, her making.</i>	121.a	<i>Doues, their fooode.</i>	161.a
<i>Cow, her caluing.</i>	122.a	<i>Doues, their foes.</i>	161.a & b
<i>Cockes, their choise.</i>	150.a	<i>Doues, their price.</i>	159.b
<i>Cocke, a moouer to repentance.</i>	150.a	<i>Doues, their kindes.</i>	160.a
<i>Calues, their gelding.</i>	122.b	<i>Doues, to allure them to the house.</i>	161.a
<i>Capons their making.</i>	153.a	<i>Doues young, their feeding.</i>	160.b
<i>Cardiaca, his vertues.</i>	183.a	<i>Doung, the sorts.</i>	18.b
<i>Cardus Benedictus, the vertues.</i>	181.a	<i>Doung new, best for meadowes.</i>	19.a
<i>Chickins hatched without the Henne.</i>	151.a	<i>Doung old, best for Corne ground.</i>	19.a
<i>Chickins diseases, and remedies.</i>	152.a	<i>Doung best, the masters foote.</i>	19.b
<i>Cresses.</i>	55.a	<i>Doung for Vines.</i>	19.a
		<i>Doung hill.</i>	12.b
		<i>Dwellinghouse.</i>	10.a
D			
<i>Date trees.</i>	93.a	E	
<i>Damsons.</i>	92.a	<i>Elme.</i>	97.b
<i>Dyll.</i>	54.b	<i>Elme, his vse.</i>	104.a
<i>Drone Bee.</i>	167.a 173.a	<i>Eldar.</i>	101.a
<i>Dogge the Starre, his rising.</i>	179.a	<i>Elecampany.</i>	61.b
<i>Dogges, to ridde them of Ticks.</i>	148.a	<i>Emperours of Neathards.</i>	107.a
<i>Dogge for the house.</i>	146.a	<i>Endiue.</i>	53.a
<i>Dogge for the fold.</i>	146.a	<i>Egges, their sorts.</i>	153.b
<i>Dogge his age.</i>	147.a	<i>Egges, to be hatched.</i>	150.b
<i>Dogges madde, the tokens.</i>	148.a	<i>Egges how to choose.</i>	151.b
<i>Dogges tayle, the cutting.</i>	147.a	<i>Egges kept from thunder.</i>	151.b
<i>Dogges, their feeding.</i>	147.b	<i>Eye of the Master, fats the Horse.</i>	115.a
<i>Dogges colours.</i>	146.b	<i>Flax.</i>	

The Table.

	F		<i>Grassing, diuers sorts.</i>	69.a
<i>Flax.</i>		37.a	<i>Grassing with the toppe downwards.</i>	71.a
<i>Firre trees, their vse.</i>	98.b,	101.a	<i>Gelliflowers.</i>	63.b
<i>Flowre gentle.</i>		63.a	<i>Gourdes.</i>	60.a
<i>Filbert.</i>		89.a		
<i>Fruitfulnesse of diuers countries.</i>	18.a		H	
<i>Fig getree.</i>		102.b	<i>Helecampany.</i>	65.b
<i>Fennell.</i>		54.b	<i>Husbandman, his good nature.</i>	16.a
<i>Fennegreeke.</i>		34.b	<i>Husbandmen most happy.</i>	7.a
<i>Fodder for Cattell.</i>		35.a	<i>Husbandmen come to be Emperours.</i>	5.b
<i>Fish delighting in mud.</i>		164.a	<i>Husbandry, nurse of all other sciences.</i>	6.a
<i>Fish delighting in grauell.</i>		164.b	<i>Husbandry cosin-germane to Wisdome.</i>	6.b
<i>Fishponds their sundry sorts.</i>		146.a	<i>Husbandry, her nobilitie.</i>	6.a
<i>Fishponds, where best.</i>		163.b	<i>Husbandry, her antiquitie.</i>	5.b
<i>Fishponds.</i>		163.a	<i>Husbandry pleaseth God.</i>	6.b
<i>Fry.</i>		164.b	<i>Husbandry no base trade.</i>	6.b
	G		<i>Holly, the tree.</i>	103.a
<i>Garlicke.</i>		57.b	<i>Hony coames, what fashion.</i>	173.b
<i>Galles.</i>		105.a	<i>Hony coames.</i>	166.b
<i>Garners.</i>		40.b	<i>Happy, who is.</i>	7.b
<i>Goose pennes, their standing.</i>		155.a	<i>Haruest for Oates.</i>	39.a
<i>Goose liner of great bignesse.</i>		156.a	<i>Haruest of Hempe.</i>	39.a
<i>Goose, her hatching.</i>		155.b	<i>Haruest of Wheat.</i>	39.a
<i>Goose, their fatting.</i>		156.a	<i>Haruest of Rie.</i>	39.a
<i>Garden hearbes, the sowing.</i>		50.a	<i>Haruest of Rapeseed.</i>	38.b
<i>Garden the standing.</i>		51.b	<i>Haruest of Winter Barley.</i>	39.a
<i>Garden, what mould best.</i>		49.a	<i>Haruest of all other Corne and Pulse.</i>	39.a
<i>Garden, dunging and digging.</i>		49.b	<i>Hempe.</i>	37.b
<i>Gardens of great antiquitie.</i>		45.b	<i>Hartichocks.</i>	61.a
<i>Garden a shambles.</i>		46.a	<i>Heauens, their state for the ground.</i>	49.b
<i>Garden without water.</i>		47.a	<i>Heauens, their state for planting and sowing.</i>	51.a
<i>Garden ill, declares an euill huswife.</i>		46.a	<i>Horses age, how to know.</i>	110.b
<i>Garden, when to water.</i>		47.b		
<i>Grassing.</i>		69.a		
<i>Grassing, the season.</i>		70.a		
<i>Grassing, a new way.</i>		71.a		

The Table.

<i>Horse loneth troubled water.</i>	114.b	<i>Horses clothes.</i>	115.b
<i>Horse his proportion.</i>	114.a	<i>Horse lesse hurt by drawing then bearing.</i>	113.a
<i>Horse broken winded.</i>	117.b	<i>Horses wallowing, holefome.</i>	115.b
<i>Horse forsaking his meate, the remedie.</i>	114.a & b.	<i>Horse hot, not to be watered.</i>	116.b
<i>Horse halting, the remedie.</i>	116	<i>Horse cold, to haue.</i>	115.a
<i>Horses their colours.</i>	110.a	<i>Horse how to chose.</i>	109.a
<i>Horses, the Cratches.</i>	116.a	<i>Horse suddenly sicke, the cure.</i>	143.b
<i>Horses foundring.</i>	116.b	<i>Hey making.</i>	43.a & b
<i>Horses gald.</i>	116.a	<i>Hey cutting.</i>	43.a
<i>Horse described by Virgill.</i>	109.b	<i>Hey, when to cut.</i>	43.a
<i>Horse windgals.</i>	116.a	<i>Husbands bestowing of time.</i>	2.b
<i>Horse to be in health.</i>	115.b	<i>Husbandry commended.</i>	5.a
<i>Horse prouoked to stale.</i>	115.a	<i>Hog ge sicke, the signes.</i>	143.a
<i>Horse tyred, the remedie.</i>	115.a	<i>Hog ge mesled.</i>	144.a
<i>Horse hauing wormes, the signes and remedie.</i>	117.a	<i>Hog ge sound, their tokens.</i>	143.a
<i>Horse, to keepe from Flies.</i>	117.a	<i>Hogges their breaming and farrowing.</i>	142.a
<i>Horse, when to be broken.</i>	112.b	<i>Hog ge sicke of the Quinsey, and the Kerncls.</i>	143.a
<i>Horses feete, the cure.</i>	116.b	<i>Hog ges, their gelding.</i>	142.b
<i>Horse his rhume, the cure.</i>	116.b	<i>Hog ge, the feuer.</i>	143.a
<i>Horse mangie.</i>	117.b	<i>Hog ges, their herbes.</i>	141.a
<i>Horse the vines.</i>	116.b	<i>Hogs diseases, & the remedies.</i>	143.a
<i>Horse pained in the belly.</i>	117.a	<i>Hog ges lung-sicke, remedie.</i>	143.a
<i>Horse, how long he liues.</i>	111.a	<i>Hog ges sicke of the milt.</i>	143.a
<i>Horse, holefome to trauaile.</i>	115.a	<i>Hog ges turne-sicke.</i>	143.b
<i>Horsing of Mares, the time.</i>	111.a	<i>Hog ges made to the horne.</i>	141.b
<i>Horses watring.</i>	114.b	<i>Hedge dead.</i>	48.a
<i>Horses gelding.</i>	113.a	<i>Hedge quicke preferd.</i>	48.a
<i>Horses currying.</i>	113.b	<i>Hedge quicke, sundry wayes of making.</i>	48.b
<i>Horse, his ordering after trauaile.</i>	115.a	<i>Hennes for broode, their choise.</i>	149.b
<i>Horse his prouender.</i>	114.a	<i>Hennes how long in hatching.</i>	151.a
<i>Horse his skowring.</i>	113.b	<i>Hennes house, the standing.</i>	154.a
<i>Horses generall remedies.</i>	116.a	<i>Hennes, how long in sitting.</i>	150.b
	& 117.b	<i>Hennes their feeding.</i>	153.a & b
<i>Horses stables.</i>	113.a		Hennes

The Table.

<i>Mast, the vse.</i>	97.b	<i>Of Horses.</i>	108.a
<i>Mastholme groue.</i>	96.a	<i>Of Colwortes.</i>	53.a
<i>Milke blacke.</i>	138.b	<i>Of Buffes.</i>	130.a
<i>Milke, to trie.</i>	138.b	<i>Of Butter.</i>	138.b
<i>Milke, the ordering.</i>	139.a	<i>Of Cammels.</i>	120.a
<i>Milke, the difference.</i>	138.a	<i>Of Dog ges.</i>	145.b
<i>Milke, the whey.</i>	139.a	<i>Of Goates.</i>	136.b
<i>Milke to purge Melancholy, and all other humours.</i>	138.b	<i>Of Cheese.</i>	139.a
<i>Milke to purge the Dropsie.</i>	138.b	<i>Of Wax.</i>	175.a
<i>Milke to purifie blood.</i>	138.b	<i>Of Pigeons.</i>	159.b
<i>Milke to loose the belly.</i>	138.b	<i>Of Cats.</i>	148.b
<i>Moone obserued in sowing.</i>	51.a	<i>Of Hennes.</i>	149.b
<i>Moone obserued in dounging.</i>	43.a	<i>Of Pot hearbes.</i>	51.a
<i>Mynt.</i>	62.b	<i>Of Gardens.</i>	49.b
<i>Myllet.</i>	31.a	<i>Of Turkie-cockes.</i>	158.a
<i>Mulbery tree.</i>	88.a	<i>Of Milke.</i>	138.a
<i>Mulbery the wisest tree.</i>	88.a	<i>Of Pulse.</i>	31.b
<i>Moiles, their colour.</i>	119.a	<i>Of Hony.</i>	174.a
<i>Moiles doe breed.</i>	119.a	<i>Of Haruest.</i>	38.b
<i>Mise, to destroy.</i>	66.b	<i>Of Moyles.</i>	119.a
<i>Mosse to destroy.</i>	42.a	<i>Of Sheepe.</i>	130.a
<i>Mustard seede.</i>	55.b	<i>Of Shepheards.</i>	144.b
<i>Myrtle tree.</i>	63.a	<i>Of Eg ges.</i>	153.b
	N	<i>Of Peacockes,</i>	157.a
<i>Nauens.</i>	56.b	<i>Of Blood letting.</i>	118.a
<i>Neatheads made Emperours.</i>	107.a	<i>Of Orchards.</i>	66.b
<i>Neighbourhood.</i>	8.b. & 44.b.	<i>Of fatting of Swine, salting, and pre- seruing of Bacon.</i>	144.a
	O	<i>Of Seedes, and their sorts.</i>	50.b
<i>Of chusing of ground.</i>	16.a	<i>Of Dounging.</i>	18.b
<i>Of Corne ground.</i>	16.b	<i>Of Swine.</i>	140.a
<i>Of Duckes.</i>	156.a	<i>Of Woods.</i>	59.b
<i>Of Bees.</i>	165.a	<i>Of good Ground.</i>	17.a
<i>Of Geese.</i>	154.b	<i>Of Wheat.</i>	25.a
<i>Of Plowing.</i>	20.a	<i>Of Turtle-doues.</i>	162.a
<i>Of Asses.</i>	118.a	<i>Of the Baily of Husbandry.</i>	13.a
<i>Of Bullockes.</i>	120.b	<i>Of the Vine.</i>	74.a

Orenge

The Table.

Radish roote.	55.b.	Sheepe, what number to be kept.	131.a
Remedie against Gnattes.	66.a	Sheepes tailes, of wonderfull bignesse.	130.b
Remedie against Wyuels.	41.a	Sheepes legs broken, the cure	136.a
Remedie against Catterpillers.	66.a	Sheepe yeerely to be drawen.	130.b
Rozin.	105.a	Sheepe, their winde perished.	136.a
Reazins small.	59.a	Sheepe having the feuer.	135.b.
Romulus nurced by shepherds.	107.a	Sheepe, their great encrease.	130.a
Rose.	64.a	Sheepe, their sorts.	130.b
Rosemarie.	62.a	Sheepe, to keepe in health.	135.b
Raspis.	59.a	Sheepe, the fould.	135.b
Rew.	52.a	Sheepe skabby chind.	135.b
Rennet for Cheefe.	139.a	Sheepe their feeding.	131.b 133.a
Raking.	24.a	Sheepe, their lambing time.	131.b
Rye.	26.a	Sheepe, the murrein.	136.a
Rye harvest.	39.a	Sheepe skabby.	135.b
Rich, how.	7.b	Sheepe coates.	133.b
Ryce.	30.b	Sheepe shearing, the time.	134.b
	S	Shepherds resemblance with Princes.	107.a
Swan.	171.b	Shepherds care in feeding.	133.a
Saffron.	61.b.	Sluses for Fish.	163.b
Sauorie.	62.b	Sage.	162.a
Setterwort, and his vse.	65.b 117.b.	Sow farrowing, her age.	142.a
	125.a	Sommer seedes.	24.b
Seruants their looking to.	14.a	Seedes, their comming up.	50.b
Seruants health, to be regarded.	14.a	Seedes, what for euery ground.	24.b
Sauine.	66.a	Seedes, the choise.	23.b
Sallets.	46.a	Sowing, the order.	23.b
Sorell.	45.a	Sowing, the season.	24.b
Sauce of Apples.	84.b	Semin oyle.	31.a
Sauce of Peares.	85.a	Sesamum.	31.a
Sheepe pild.	134.b	Seruise tree.	86.b
Smalladge.	54.b	Shippes, of what tymber.	103.a
Sellars.	12.a	Solitarie life, his vse.	2.a
Sellars and Larders.	12.a	Spinage.	54.a
Sheep sicke of the lungs, the cure.	136.a	Sponge.	51.b
Sheepes cough, the cure.	136.a		Sprie.
Sheepe, their time of blossoming.	131.b		

The Table.

<i>Sperie.</i>	36.b	<i>Trees removed, their standing.</i>	94.b
<i>Sowe, foure moneths with Pig.</i>	142.b	<i>Trees helped with urine.</i>	95.a
<i>Swine-sties, their standing.</i>	142.a	<i>Trees, the trimming of their roots.</i>	93.b
<i>Shepherds of Switserland.</i>	145.a	<i>Trees their fat.</i>	104.b
<i>Sheepe delight in Musicke.</i>	133.b	<i>Trees to saue from Mistes.</i>	95.a
<i>Sheepe, few, and well fedde.</i>	131.a	<i>Trees sicke, the remedy.</i>	95.a
<i>Sheepe, of what age, and how to buy.</i>	130.b	<i>Trees, their flesh.</i>	104.b
	14.a	<i>Trees, the skinne.</i>	104.b
<i>Sheepe, kept abroad.</i>	14.a	<i>Trees a great benefit.</i>	67.a
<i>Sheepe, when to buy.</i>	131.a	<i>Trees bearing fruit, their sorts.</i>	67.b
<i>Sheepe couered.</i>	134.b	<i>Trees to ripe timely.</i>	95.a
<i>Sheep hauing swallowed a Horseleach,</i>		<i>Trees not bearing, the remedie.</i>	95.a
<i>his cure.</i>	136.a	<i>Trees, their distance in standing.</i>	94.a
<i>Scabious, the vertues.</i>	181.b	<i>Trees young, their proying.</i>	94.b
		<i>Trees standing Sawtyer wise.</i>	68.b
		<i>Trees standing Checker wise.</i>	68.b
		<i>Trees their bowes.</i>	104.b
		<i>Trees, their order for graffing and</i>	
		<i>planting.</i>	70.a
		<i>Trees, their blood.</i>	104.
		<i>Trees launced.</i>	49.b
		<i>Trees, their seede plot.</i>	72.b
		<i>Trees their kindes.</i>	68.b.69.a
		<i>Trees their downing.</i>	93.b
		<i>Trees their dropping.</i>	68.b.94.b
		<i>Trees their lone.</i>	92.b
		<i>Trees their remouing.</i>	94.b
		<i>Trees their veines.</i>	104.b
		<i>Trees their wennes.</i>	103.a
		<i>Trees their shadowes.</i>	69.a.94.a
		<i>Tymber for Plowes.</i>	103.b
		<i>Tymber for water workes.</i>	104.a
		<i>Tymber for bowes.</i>	104.a
		<i>Tymber for Bordes, for Axeltrees, for</i>	
		<i>Hastes and Handles, for Gates, for</i>	
		<i>Lances, for Tables, Shippes, Tar-</i>	
		<i>gets, Sheathes, Pullies, and for</i>	
		<i>Beames..</i>	

T

Tymber for building. 103.b

Tymber for pumpes, and water pipes.

103.b. & 104.a

Trees, the North side mossy. 100.b

Trees of knowledge, why created. 67.a

Tree for eschewing his fall. 103.a

Tree neuer without fruit. 86.a

Tree the wisest. 88.a

Trees best for tymber. 100.b

Trees how to keepe from wormes. 85.a

Trees springing best of the seede. 76.b

Trees soone growen, the fruit lasteth

not. 93.b

Trees graffed in the stocke. 70.b

Trees graffed betwixt wood and rinde.

69.a

Trees whereont to be graffed. 69.b

Trees when to be proined. 94.b

Trees spring slowly of the seed. 89.a

Trees alwayes greene. 67.b

Trees to be pulled. 99.b

The Table.

<i>Beames.</i>	103.a. & b. 104.a		
<i>Tenants changing, not good, Their labour more to be regarded then their rent, their ordering.</i>	45.a		
<i>Thrushes.</i>	162.b		
	V		
<i>Veronica, his vertues.</i>	182.a		
<i>Vernish.</i>	105.b		
<i>Vine plants, which, and how to get, their keeping, their length.</i>	77.b 78.a		
<i>Vine plants, their planting.</i>	77.a		
<i>Vine, his easie husbandry.</i>	78.b		
<i>Vintage.</i>	77.a		
<i>Vineyard stony.</i>	76.a		
<i>Vine the plucking of his leaues.</i>	80.a		
<i>Vine his propping.</i>	80.a		
<i>Vine his first plant.</i>	74.a		
<i>Vine his wonderfull encrease.</i>	74.b		
<i>Vines but late in Germanie.</i>	75.a		
<i>Vines yoked.</i>	75.b		
<i>Vines guttered.</i>	75.b		
<i>Vines mingled, not to be planted.</i>	77.a		
<i>Vines how to stand.</i>	76.b		
<i>Vines planted, their ordering.</i>	75.b		
<i>Vines how to be dunged.</i>	78.b		
<i>Vines, his friendship and hatred with certaine trees.</i>	75.b		
<i>Vine when to plant.</i>	77.a		
<i>Vine his grafting.</i>	77.a		
<i>Vine who first found.</i>	74.b		
<i>Vine when he flowreth.</i>	26.a 80. b. & 75.a		
			W
		<i>Wormewood.</i>	65.b
		<i>Wood for Cuppes.</i>	104.a
		<i>Winter graine the best.</i>	27.a
		<i>Wheat fiftene dayes in blade, fiftene in flowre, and fiftene in riping.</i>	26.a
		<i>Willow groves.</i>	99.a
		<i>Willow his vse.</i>	103.b
		<i>Willow the kindes.</i>	103.b
		<i>Wood cutting, the season.</i>	100.a
		<i>Woods coppised.</i>	99.b
		<i>Woods coppised their sewerig.</i>	100.a
		<i>Woods for Mast.</i>	97.a
		<i>Wood greatly cherished by the Romanes.</i>	96.a
		<i>Woods wilde, their fruits.</i>	96.a
		<i>Wheat harvest.</i>	39.a
		<i>Wheat the kindes.</i>	25.b
		<i>Wheat and the Vine flowre together.</i>	26.a
		<i>Wine of Apples.</i>	84.a
		<i>Wine of Peares.</i>	85.b
		<i>Walnut tree, his vse.</i>	103.a
		<i>Walnut tree for esbeweth his fall.</i>	103.a
		<i>Woolles the best.</i>	134.a
		<i>Water Betony, his vertues.</i>	183.a
			Y
		<i>Yew tree, his vse.</i>	104.a
			Z
		<i>Zea.</i>	27.b
		<i>Ziziphos.</i>	89.a

Finis Tabulæ.



The names of such Authours , and
Husbands, whose authorities and obser-
uations are used in this Booke.

The Bible , and Doctōrs of the Church .

A ristotle.	Hesiodus.	Tragus.
Aristophanes	Hippocrates.	Varro.
Athenæus.	Homer.	Vegetius.
Anatolius.	Horace.	Virgill.
Alexander Aphrod.	Isocrates.	Vitruuius.
Alexander Neap.	Iulius Firmicus.	Xenophon.
Appuleus.	Iulius Pollux.	
Ægineta.	Lucian.	<i>Englishmen.</i>
Ælianus.	Macer.	S. Nich. Malbec.
Budæus.	Martiall.	M. Cap. Bingham.
Cato.	Mathiolus.	M. Iohn Somer.
Cardanus.	Nicander.	M. Nicas. Yetzwert.
Cassianus.	Oppian.	M. Fitzherbert.
Celsus.	Ouid.	M. Will. Lambert.
Columella.	Petrus de Cresc.	M. Tuffer.
Constantine.	Plato.	M. Thom. Wherenhall.
Democritus.	Platina.	M. Rich. Deering.
Didymus.	Both the Plinies	M. Hen. Brockhull.
Dio.	Plutarch.	M. Franklin.
Dioscorides.	Polibius.	H. King.
Diodorus Siculus.	Ruellius.	Richard Andrewes.
Faccius.	Solon.	Henry Denys.
Florentine.	Sotron.	William Prat.
Galen.	Theocritus.	Iohn Hache.
Heliodorus.	Theophrastus.	Phillip Partridge.
Herodotus.	Thucydides.	Kenworth Datforth.



The first Booke of Husbandry :
Entreating of Earable-ground,
Tillage and Pasture.

Cono. Rigo. Metella. Hermes.

C O N O.



It thinketh I heare a neighing and
trampling of Horses without, goe
Hermes, go know what Strangers there
are.

HERMES. Sir, if my sight faile
me not, it is Rigo, the principall Secre-
tary.

METELLA. A goodly matter, scarce
you haue bene two dayes at home, and now you must be sent
for againe to the Court, perhaps to be sent abroad on some em-
ballage.

C O N O. God forbid : iudge the best, it may be he comes
to see me of curtesiz and friendship.

R I G O. Ah maister Cono, I am glad I haue found you in
the midst of your country pleasures: surely you are a happy man,
that thisting your selfe from the turmoiles of the Court, can
picke out so quiet a life, and giuing ouer all, can secretly lie
hid in the pleasant Countries, suffering vs in the meane time
to be tost with the cares and businesse of the common weale.

C O N O. Surely I must confesse I haue taken a happy way,
if these gods of the Earth would suffer me to enioy such happi-
nesse, that haue bequeathed the troublesome life of the Court

The first Booke, entreating

to the bottome of the sea. But what? doe you intend, to bring me againe to my old troubles, being thus happily discharged.

R I G O. Nothing lesse, though I would be very glad you should not so hastily forsake the Court, nor rid your selfe from the affaires of the Common-wealth. You know we are not bozne to liue to our selues, nor at our owne pleasures: but for our country, our Common-wealth, & state whereto we are called. There cannot be a worse thing then for a man to suffer his Country forsaken, to come into the hands of villanous persons, and to re-loyce with himselfe, that being out of Cunnshot, he hath left the hurly burly of gouernement. And though Cato had no need of Rome, yet Rome and Cato his friends had neede of him.

C O N O. I grant you, as long as yeres and strength will beare it, we are bound to serue in our vocation: but as you your selfe are driuen to confesse, there is sometime a reasonable cause of gi-
uing ouer. Lucullus is highly commended, that while his body was strong & lusty, he applyed himselfe wholly to the seruice of his country, & that after his honozable seruice both abroad and at home, in the end he got himselfe quietly againe to his booke. And Scipio, who after he had conquered both Carthage & Numidia, was content rather to leaue of & rest himselfe, then to do as Marius did, who after so many victozies and atchieued honours could not content himselfe when he was wel, but puffed vp with vnmeasurable desire of glozy & gouernment, would in his old age contend with yung men: wherby he brought himselfe at the length to most miserable miserie. Surely Cicero tooke a better way by much, when after the ouerthrow of Caelins conspiracy, he rather contented himselfe to liue quietly at home, then by ambitious intermeddling with the contentions of the Common-wealth, to bring himself in danger of his life. The desire of bearing rule in a common-wealth, is to be moderated with a bounded modestie, specially in this age of ours, when Courts are subiect to such enuies, hatreds, flatteries, slanders, couetous & ambitious desires, and where no place is left for vertuoulnes & Christian simplicitie. These are the things that dzoue Socrates & Plato from their common-wealthes, & do likewise keepe me, being now of good yeres and sickely, the Court forsaken, in this my poore cottage at home.

R I G O.

Lucullus.

Scipio.

Cicero.

R I C O. Yea, but age is no sufficient excuse for you to leave the governing of your Country. You know, ἐρεα νεων βεβληοι νεογοντων, the labour of young men & the counsell of old men, and how those common-weales are safeliest alwayes guided, where old mens heads, and young mens armes are stirring. Father Nestor got great commendation for his counsell at the siege of Troy, where as Peleus and Laertes were despised and accompted for bench-whistlers at home. Nestor.

CONO. Some are tickled with glozy: some with gaine, gifts, & rewards, retaine the cockrowen Courtiers, yea such as haue one of their feet already in the graue. Now if we would content our selues with this life, & giue our selues to the true & perfect life

In Princes Courts we should not gape nor gafe,

Nor ill successe in sutes should vexc our minde :

No vaine nor fond deuise our eyes should dase,

Nor lewd affection should our fancie blinde,

All such things should be left and layd aside,

Now liues alas each oue of order quite :

And to our shame the time away doth slide,

All seeke to liue, but none to liue vpright.

As the Poet excellently well writeth in his Epigram, it were the part of a mad man, or a corcombe, to run headlong without any profit into danger, when as he may liue godly & quietly at home without all trouble, as our olde fathers were wont to doe.

R I C O. It is very true: the Poet accompteth him blessed to whom this life can happen. But in the meane time you are alone, and lead your life with beasts, lowts of the Countrey, and trees, that haue spent all your time befoze among wise and honourable personages. Socrates affirmeth wisdome to be learned in Cities, and not among beasts and trees. Socrates.

CONO. Socrates his iudgement, though I will not gaine say, yet it appeareth by his disputations with Ischomachus in Xenophon, that he did not disalow the Country mans life. And as for my liuing alone, it almost hapneth here to me, as Cicero reporteth Scipio to say, that he was neuer lesse alone, then when he was alone: for being alone, I haue continual conference with the grauest & wisest men: for either I app'ly my selfe wholly to the sacred

The first Booke, entreating.

The vse of a
solitarie life,

Oracles of the Prophets and Apostles, who teach the true wisdom, by which both Kings rule, and Princes gouerne, and by which our soules (which we chiefly ought to regard) are fed, which also shew vnto vs the perfect way to that euerlasting Court aboue: or when I list, I haue the company of the greatest Princes and Monarchies of the world, with whom I conferre of the doubtfull State & government of Common weales, in reading the Histories and Chronicles of the world, travelling as it were, throughout all nations, or reading the workes of such as write in husbandrie, I occupie my minde in the beholding the wonderfull workmanship of God in Trees, Plants, and Beasts, whereby in the Creature, I acknowledge the Creator. And besides these dumbe companions, my friends come sometimes to see me, sometimes Gentlemen, sometime Noblemen, sometime the Prince himselfe vouchsafeth to visit mee: so that there is scarcely any day but that some come vnto me, some for their pleasure, some for god-will, & some for their businesse: for to my friends and my neighbours, I neither deny my counsel, nor my trauel. Therefore it is very expedient that good choise be made of Lawyers, & discret men for the Countrie, alwayes provided; they giue their counsell free & without wages. Many times beside, you from the Court send me hither processe and arbitrements to be tried before me. Thus haue I in the Countrie sweeter and pleasanter company then you haue, either in the Court or Citty.

RIGOR. Tell me then I beseech you, how you bestow your time, and how you are occupied all the day, for I doubt not but you doe as much as in you lieth to spend the time as profitably as you may.

CONOR. I will tell you thoroughly, and not dissemble with you, if you will giue me the hearing, and to begin, I will vse the words and verses of the foresaid Poet, though in other his writings scarce honest, yet in this speaking very graue & wise.

First serued on knees the Maiestie diuine,

My seruants next and ground I ouerlooke:

To euery man his taske I doe assigne,

When this is done, I get me to my booke.

I vse commonly to rise first of all my selfe, specially in Sommer, when we lose the healthfullest & swietest time with sluggishness. Aristotle accounteth rarely rising the best, both for health, wealth, & Studie. In the winter if I be loath to rise, if either the vnseasonablenes of the weather, or sickness cause me to keepe my bed, I commit all to my Steward, whose faith & diligence I am sure of, whom I haue so well instructed, that I may safely make him my deputie: I haue also Euriclia my maid, so skillfull in huswifery, that she may well be my wines suffragan, these twaine we appoint to supply our places: but if the weather and timeserue, I play the workemaster my selfe. And though I haue a baylife as skillfull as may be, yet remembryng the old saying, that the best doing for the field is the Masters foot, & the best prouender for the horse the Masters eye, I play the ouerser my selfe. That it is holsonie to rise rarely, I am perswaded both by the counsel of the most graue Philosophers, and by mine owne experience. When my seruants are all set to worke, and every man as busie as may be, I get me into my closet to serue God, and to read the holy Scriptures: (for this order I alwayes keepe, to appoint my selfe euery day my taskie, in reading some part either of the old Testament or of the New:) that done, I write or read such things as I thinke most needful, or dispat:ch what businesse so euer I haue in my house, or with suters abroad. A little befoze dinner I walke abroad, if it be faire, either in my garden, or in the fields, if it be soyle, in my galery: when I come in, I find an egge, a chicke, a peece of kid, or a peece of veale, fish, butter, and such like, as my foldes, my yarde, or my darty and fishpouds will yeeld: sometime a sallat, or such fruits as the garden or orchard doth beare: which victuals without any charges my wife prouideth me, wherewith I content my selfe as wel, as if I had the daintiest dish in Europe: I neuer lightly sit aboue one houre at my meat: after dinner I passe the time with talking with my wife, my seruants, or if I haue any, with my ghests: I rise & walke about my ground, where I view my worke men, my Pastures, my Medowes, my Corne, and my Cattell. When I am in the Countrie, I goe euery day, if the weather be good, and no other great businesse, about my ground: if not euery day, at the least.

The best
doing for
ground is
the matter
foot.

once in two or three dayes: as often as I come to the Citie from the Countrey, I doe the like, to vnderstand how my ground is husbanded, and what is done, what vndone: neither do I euer go about it, but some good commeth of my trauaile. In the meane while I behold the wonderfull wisdome of Nature, and the incomprehensible working of the most mighty God in his creatures, which as Cicero truly affirmeth, is the delicatest food of the Soule, & the thing that maketh vs come nearest vnto God. Here waigh I with my selfe, the benefites and wonderfull workes of God, who bringeth forth grasse for the Cattell, & greene hearbes for the vse of man, that he may bring food out of the earth, according to the Psalme. Here he preacheth to me.

Academ.
quest. lib. 1.

Psal. 104.

The fruitfull Earth that tild in sundry wise,
vnto the eye her goodly fruits doth yeeld:
The Violets sweet that each where thicke doe rise,
and staine with purple die the pleasant field.
The field with hearbes, the hearbes with branches bryue,
The glittering flowers that shine like starres of light,
And springing fast disclose the grace they haue,
Each hearbe with sundry flowre most sweet in sight.

What workeman is there in the world, that is able to frame or counterfeit such heauenly workes. Who could of a slender grasse make Wheat or Bread, and of a tender twigge bring forth so noble a licour as Wine: but only that mighty Lord that hath created all things visible & invisible: With these sights do I recreate my minde, and giue thanks vnto God the Creator and conseruer of all things, for his great and exceeding godnes, I sing the song, To thee, O Lord, belongeth praise in Sion, or, Praise thou the Lord O my soule, &c. beseeching God to blesse the gifts that hee hath giuen vs, through his bounteous liberalitie, to enrich the Fields, and to prosper the Corne and the Grasse, and that he wil crowne the yere with his plenteousnesse, that we may enjoy the fruits of the earth with thanksgiuing, to the honour of him, and the profit of our neighbour. Then returning home, I goe to writing or reading, or such other busines as I haue: but with study, or inuention, I neuer meddle in three houres after I haue dined. I suppe with a small pittans, and after supper I eyther seldome

oz neuer write oz read, but rather passe the time seeing my Sheepe come home from the Feild, & my Oxen dragging home the plow with weary necks, in beholding the pleasant pastures sweetly smelling about my house, oz my heares of cattell toiling hard by me: sometime I list to rest me vnder an old Holme, sometime vpon y greene grasse, in the meane time passeth by me the pleasant Riuer, the stream: sailing from the springs with a comfortable noise, oz else walking by the Riuer side, oz in my garden, oz in these pastures, I confer with my wife oz seruants of husbandry, appointing what I will haue done: if my Bailiffe haue any thing to say, if any thing be to be bought oz sold: for a good husband, as Caro saith, must rather be a sellar then a buyer. Sometimes (speci- ally in winter) after supper, I make my Minister to tel something out of the holy Scripture, oz else some pleasant story, so that it be honest & godly, and such as may edifie. Two oz three houres after supper I get me to bed, and commonly, as I said before, the last in the house, except my Chambelaine and my Steward.

A good husband must rather be a sellar then a buyer.

R I C O. In the meane time being farre from the Church, neither can you heare the Sermons, nor be present with your wife and your household at seruice: for your owne part, though ye may supply the matter with reading, yet your wife and your seruants can not so doe.

C O N O. For my part (without vaunt be it spoken, I haue seruice euery day at certaine appointed houres, where preacheth to me daily the Prophets, the Apostles. Basil, Chrysostome, Nazianzen, Cyril, Cyprian, Ambrose, Austen, and other excellent preachers, whom I am sure, I heare with greater profit, then if I should heare your six Iohn lack-latines, and foolish fellows in your Churches. My wife also being giuen to reading, readeth the Bible, & certaine Psalmes, translated into our owne tongue, if there be any thing too hard oz darke for her, I make her to vnderstand it: besides, she hath priuate prayers of her owne that she vseth: in the meane time I haue one, that vpon the holy daies (if the weather oz our busines be such as we can not go to church) readeth the Gospel, teacheth the Catechisme, and ministrereth the Sacraments when time requirer: but in the Sommer time, if the weather be not vncreasonable, wee goe alwayes vpon the

The first Booke, entreating

The say-
ing of saint
Anthony.

Sundaies and festiuall dayes to our Parish Church, where we
heare our Curate, and receaue the blessed Communion : as for
my household, I bring them to this order, that they alwaies serue
God before their going to worke, & at their comming to meales.
It is written of Anthonie the Ermitte, that being demanded of
a certaine Philosopher how he could in the solitarie wildernesse
without any booke, occupie himselfe in the studie of Diuinitie :
he answered, that the whole world serued him for booke, as a
well furnished Library: in which he alwayes read the wonder-
full workmanship of God, which in euery place stood before his
eyes. In the like sort haue I my household seruants well instru-
cted in the chiefe grounds of true Religion, who leaning to their
vocation and innocencie of their life, not caried away with the
vaine entisements and pleasures of Cities, to behold the Maie-
stie of God in his workes, and honor the Creatour in his Treas-
tures, not onely vpon Sundayes, but euery day in the yeere,
where they may also heare the little birds, and other creatures
in their kindes, setting out the glozy and Maiestie of God.

R I C O. You seeme to tell me of a Schoole of Diuinity, & not
of a Husband-mans cottage: this was the very order of the Pa-
triarkes, and the monasteries in the Primatiue Church.

Homil. 56.
vpon the
16. of Mat.
and in o-
ther places.

C O N O. Indee Chrysolstome would haue all Christians,
married folkes and vnnaried, to lead their liues accordi-
ng to the rule and order of Monkes: but of such Monkes as liued in those
dayes, not such god-felloves as ours be now: for the profes-
sion of a Monke in that age, was no other but the life of the pur-
rest and perfectest Christians, which kinde of life the olde Patri-
arkes, as the Scripture doe witnesse, did lead.

R I C O. I oftentimes wondred, that hauing so goodly a house
and so well furnished in the citie as you haue, what you meant to
desire rather to dwell in the Countrie: but now that I see the
good order of your life, I leaue to wonder any longer.

C O N O. It is naturall to me, and lest me by my parents, to
delight in husbandry: for my Father, my Grandfather, my great
Grandfather, and as farre as I can fetch my pedigree, all my
Ancestours were occupiers of husbandry, and were all borne
and died in this house that you see.

R I C O.

RIG O. I remember not long since, being in businesse with the Chauncelloz Hypsographus, a sober man, your neighbour, and one that delights in husbandry, it was my chauce to see your father, surely a man would haue taken him for old Laertes in Homer, or rather for Abraham, or Isaac, and as the Chancelloz told me, he was foure-score and ten yeres olde: but so faire hee bare his age, as that I toke him to be scarce fiftie, his memory and iudgement seemed to serue him wonderous well, he would talke of the orders of the Countrie, of the antiquities thereabouts, of the stories of the Scripture, so sweetly and eloquently, as I was wonderfully in loue with him: hee had the Prophets and the Euangelists at his fingers ends, so that I saw the noble men had him in estimation, not without great cause.

CONO. Indeed he toke such delight in the holy Scriptures, as no day passed him without reacing some part of them: he used to goe commonly euery day to the next Parish Church, neither would he misse any Sermon that he could heare of, he bzought both Preacher and Priest into order, and caused them to frame their lines according to the rule of the Gospell.

RIG O. You paint me here the patterne of a Bishop, or an ouerser: indeed the most part of these Priests had need of such ouersers to restraine their couetousnesse, the spring of all their abuses.

CONO. To returne to my quietnes, or my Husbandry, from whence I digressed: doe you yet maruaile how I can delight my selfe with this so honest and profitable a quietnes, then which in the iudgement of the holiest & wisest men, there is nothing more honest nor better, neither is there beside any trade of life more meet for a Gentleman, nor traualke more acceptable to God, then is the tilling of the ground. The people in the old time (as Cato a man of great wisdom, & a teacher of husbandry doeth witnesse) as oft as they would giue a man the name of an honest man, they would call him a good husband, comprehending in that name as much commendation, as they could giue him: besides mess mightie Kings and Emperours were no whit ashamed to profess this trade, as Xenophon reporteth of king Cyrus: the like wytteth Quinaru. Curtius of Abdolominus, Numa the king of the Romans

The commendation of Husbandry.

Emperours and Kings, professors of Husbandry.

bars.

The first Booke, entreating

bare a singular affection to husbandry, for that hee thought there was no kind of life so fit to maintaine either peace or warres, or for the prouision of a mans life, being rather a giuer of good life, then riches. Moreover, Hiero, Philometor, Attalus, Archilaus, and a great number of Princes more, were delighted with the profession of husbandry: this knowledge is also highly commended by Homer, the very fountaine in his time of wisdom, whereas hee describeth Alcimus the king of the Phaeaces, whose delight in the planting & pleasures of his orchards was wonderful. And Laertes the olde man, that with his continuall occupying of husbandry, brought his mind better to beare the absence of his son. Heliodorus in his worke *ἡ ἕρως καὶ ἡμέρω* giueth great praise to Aetrea, that being banished the city, gave himselfe to the life of the countrie: yea, the ground hath before time bin tilled by the hands of Emperours, the Earth in the meane time, reioycing to be torne with a victors share, and to be plowed with the hands of a triumphant conquerer, either because they dealt with the like regard in their seed, as in their warres, or vsed such diligence in the corne fields, as they did in the campe, or else because all things handled with honest and vertuous fingers prosper the better, being more carefully looked to.

Serranus when he was called to honour, was found sowing of seed. The Dictators office was brought by the purcuant to Cincinatus, being all naked & besmeared with sweat and dust. The purcuants had first their name of calling Senators and Governours out of the Countrie to the Citie. In like sort had this name at the first, the Fabij, the Pisons, the Curij, the Lentuli, the Ciceroes, the Pilunni, and other auncient houses. Horace telleth, that of husbandmen haue bene bred the valiantest and worthiest souldiers: affirming, that the hand that hath bene vsed to the spade, proueth often of greatest value in the field. Homer reporteth a great valancie in Vlisses his neat heard, in the slaughter of those fellows that woeld haue rauished his mistress. Most certaine it is, that a great number of Emperours haue sprung from the plow And to let others see, it is knowne that the Emperours Galerius & Maximinus came both from poore Heardmen to the Imperiall dignitie. The like is written of Iustine, Constantianus, Probus, and Aurelianus. The Stoics report, that

Serranus.

Cincinatus

Husbandmen come to be Emperours.

that M. Curius the Emperour was found in his house boyling of a rape roote, when he refused the great sums of gold brought by the Samnits Embassadors. What should I speake of the antiquitie of it: the holy Scriptures declare husbandry to be the ancientest of all trades. And to begin with the very beginning of man, & that neither Oliris, nor Dionisius, were the first founders of this knowledge, as the Paines fable, but that the most mighty Lord himselfe did first ordaine it: for Adam and his sons were all husbandmen, Noe was a planter of vines, Abraham, Isaac, and Jacob, were shepheards, Saul from his Asses, & Dauid from his shep, were called to the crowne, Elias & Amos of shepherds were made prophets. Ozias as we read, professed husbandry, Iesus the sonne of Syrach commending husbandry about the rest, saith, hee customably vsed himselfe to hold the plow to drie the cart, & to keepe cattell: but what need we more? Our Sauour Christ himselfe glorieth to be the son of a husbandman, & frameth his parables of planting of vines, of shepe & shepheards: moreouer, as it is in Luke, our Lord seemeth to be a teacher of husbandry, where he sheweth, that trees are to be digged about & dunged, that they may prosper the better. For sith this knowledge is of all other most innocent, & without which it is most plaine we are not able to liue: the best men haue alwayes embraced it, and the old Fathers haue euer counted it very Toler-German to wisdom. Cicero calleth it the Mistress of Justice, diligence, and thurstines: some others call it the mother and nurse of all other arts. For whereas we may liue without the other, without this we are not able to sustaine our life: besides, the gaine that hereof ariseth, is most godly, and least subiect to enuy, for it hath to deale with the earth, that restozeth with gaine such things as is committed vnto her, specially if it be furthered with the blessing of God. The onely gentlemanly way of encreasing the house, is the trade of husbandry: and for this cause they were alwayes accounted the perfectest Gentlemen, that, content with the liuing their Ancestors left them, liued in the Countrie of their Lands, not meddling with sigging, chopping, and changing, nor seeking their liuing by handicrafts. M. Varro in his time, sayth, there was great complaint made, that the Fathers forsaking the Plough and the Sickle, began to creepe into the Towne,

The antiquitie of Husbandry.

The first planter of Vines.

Husbandry the mother & nurse of all other Arts.

The worthinesse of Husbandry.

and

The first Booke, entreating

and busied themselves rather with Pageants and Widsommer games, then with the Vineyard of the Field, wherreas the Governours of Rome so deuised the yere, as they assigned onely the ninth day for businesse of the Citie, & the rest of the time for the tillage of the Countrie, wheroby being hardened with labor in peace, they might the better be able to abide the trauaile of warres. Which countrie people were alwayes preferred before the people of the Citie, and more Nobility thought to be in them that till the ground abroad, then in those that liuing idely within the walles, spent their time vnder the shadow of the penthouse: except a man will, with the common sort, thinke it more honest to get his liuing with the blood and calamitie of poore soules, or not daring to deale with the sword, to make his gains of marchandize, and being a creature of the land, contrary to his kinde, giue himselfe to the rage of the Seas, and the pleasure of the Windes, wandering like a bird, from shore to shore, and countrey to countrey, or to follow this godly profession of bawling at a barre, & for gaine to open his talues at euery bench. Surely, as I said before, this onely hath bene euer counted the innocentest trade of life of all men, and in all ages. By husbandry were made rich the godly Fathers, Abraham, Lot, Iacob, and Ioab, and most certaine it is, that this profession & this gaine is most acceptable to God, when hee commanded Adam to till the ground, and to get his liuing with the sweat of his browes. Thus is husbandry of such authority, as God with his open witness hath allowed it, and afterwards by his seruant Moses hath added his blessing vnto it, saying, I will giue the ground my blessing in the sixt yere, and it shall bring forth the fruits of thre yeres. And againe, If you will keepe my commaundements, I will send you raine in due season, and the earth shall yeeld her increase, and your trees shall be loder with fruit, the threshing time shall laste till the vintage, and the vintage shall endure till the sowing time, & you shall eat your bread with plenteousnes. What can there be now more pleasant to a Christian man, than to get his liuing by such meanes as he knoweth doth please God, and to play the Philosopher in the most sweet contemplation of the benefits of God, and to acknowledge and reuerence the wisdom & power of the diuine

Genes. 3.

Husbandry
pleasing to
God.
Leuit. 26.

diuine Patricke, and his bounteousnesse to mankind, to giue thanks and praise for his godnesse, the very hearbes and creatures in the field in the meane time preaching vnto vs.

R I G O. You frame me here of a husbandman a diuine, and almost bring mee in minde to become a husbandman, who alwaies hitherto with the common sort, accounted this husbandrie to be a beastly and beggarly occupation.

C O N O. What diuinitie there is in it, and what a field of the acknowledged benefits of God, you haue heard. That the common sort doe thinke it a beastly and beggerly kinde of life, it is no maruell, sith the common people do neuer iudge a right. The common people doe wonder at the pompe of the Court, and iudge them for the happiest men that deckt with gold and purple, are in greatest fauour with Princes, and Officers, and Councellozs to them, little knowing in the meane time what heapes of sorowes lies hid vnder that braue & glittering misery. The common sort preferreth shamefull and beastly delicacie, before honest & vertuous labour, ioying to consume the night in drunkennes, lechery, and billany, and the day in sleepe & pastime, thinking such happy as neither behold the rising nor setting of the Sunne. But those that are of sounder iudgement, account the husbandman most happy, if they knew their owne felicitie, to whom the Earth in a farre quieter maner doth minister a sufficient liuing.

And though with gorgeous gates the building high,

With earthly greetings alwayes doe not flow,

Nor feeling garnisht gay vvith imagrie,

Nor rich attire wee see, nor costly show :

Yet stedfast state and life vnskil'd of guile,

With wealth ynough and Pastures wide at will,

And people strong trair'd vp to paine and toile,

And youth with diet small contented still,

Where Godly zeale and vertues all did dwell,

When Iustice last did bid the world farewell.

As the Poet hath most grauely witten in the praise of the Georg. 2.
husbandman, Aglus Sophidius was iudged happy by the Oracle
of Apollo, because he occupied a small cozner of Arcadia, but yet
sufficient

The first Booke, entreating

sufficient for his liuelod, where he spent his life without euer coming abroad: whose order of life sheweth, that he was neither vexed with greedy desire, neither with any other trouble of minde, as Pliny witnesseth. But I holde you too long with commendation of that which of it selfe is sufficiently commended. Hail, wife, I pray you let vs goe to dinner.

METELLA. You shall sit by and by. God morrow maister Rigo, I thought Xenoplutus had bene here, who bseth to fetch my husband away, he hath by chance bene now at home a weeke or twaine, which some mistaking, prefer him to most painefull and troublesome busines, procuring him to be sent in embassage beyond the pillars of Hercules, and (which they should be loath to beare themselves) they cast all vpon his backe, as a common packhorse, who being now old, reason would he would be spared and suffered to be in quiet, that being at the last free from the furmoiles of the world, he might giue himselfe to his prayers, and prepare himselfe for heauen.

RIGO. It were more for the benefit of his Country, that maister Cono came oftner to the court, but he is the seldomer there, because he taketh such pleasure in his husbandry: howbest, I came for no such purpose, but onely to visite him, being my old friend.

CONO. You must beare with a womans babling.

RIGO. I pray you, since it is not yet dinner time, let vs walke about, that I may view your house till diuiner be ready.

CONO. If it please you, I will shew you my house, where I haue appointed my kingdome.

RIGO. How surely you haue as happy and as pleasant a kingdome as may be.

Who is happy. CONO. Indeed I confesse my selfe happy in this, that contenting my self with my poore estate, I desire no more: for as he saith,

Horace,

The man that most doth heere possesse,

Thou canst not iustly happy name,

But he whom God with gifts doth blesse,

And well doth know to vse the same:

Him maiest thou rather rightly call,

A happy man about them all.

Surely I, in this my kingdome, or rather poore cottage, am more
happy

happy then a great sort of kings & princes of the world, that are lords of many & large dominions. Riches are not to be measured by their multitude, but by the mind of the possessor. And as David saith, a little is better with the godly, then the great riches of the wicked. Cincinatus occupied only 4. acres of ground: Socrates having but 20. Markes in all the world, was counted a rich man. So I with Virgill doe commend great possessions, but had rather occupie little. Therefore looke not to see here the house of Lucullus or Hyrcius, which is said to be sold for 4000000. H S. such stately dwellings & marble floores, as Cicero saith, I despise.

Who is rich.

R I C O. Notwithstanding, here is all things faire, and as it appeareth commodiously built.

C O N O. For my part, I build my house, as they say, according to my purse, agreeable to my calling, & to my living. I will shew you in order how I have cast it, following the advise of Isecomachus in Xenophon, whom Cicero doth greatly commend. And first, the seat of my house hath mooved me to build it after this sort. Cato would have a man long in determination to build, but to plant and sow out of hand. Our fathers here before, obserued the same, and seemed to follow the counsell of Cato and Columella, with whom agreeth also Plinie, that the owner build his house in good order, so as neither the house be too great for the land, nor the land too much for the house. And here in it is written, that L. Lucullus, and Qu. Scaxola, were both to blame: for one of them had a greater house then was answerable to his living: the other, which was Scaxola, built a smaller house then his living required, where both are unprofitable to the matter: for the great ruinous house, not only is moze chargeable in building, but also asketh greater cost in the maintaining. Again, if the house be too little, it will be a destruction & losse of your corne and fruit: therefore it is greatly to purpose, in what sort we build & ordaine our house. Cato would have the house so seated, as the ayre be good about it, and (if it may be) placed at the foot of some of a hill, looking directly South, & in a wholesome corner. Varros minde is, to have it placed toward the East, that it may have the shadow in Summer, & the Sunne in Winter: with whom Columella agreeth, saying, that if abilitie, serue the seats

The order of building of a house for the Countie.

The seat of a house.

The first Booke, entreating

is to be wished in a wholesome place (for Caro, as shall hereafter be shewed, would haue healthy standing chiefly regarded) with a fruitful mould, some part of it champion, some hilly, lying East or South, well watered and wooded and standing not farre off from some haue, or navigable river, to the end he may carry and transport such things as him listeth. Cornelius Tacitus writeth that the Germans were wont to build their houses, as the hill, the Riuer, the Wood, or the Lake, would best suffer them.

R I G O. Hereof I thinke sprang at the first so many surnames as are at this day deriued from Mountaines, Riuers, Lakes, and Woods.

C O N O. It may be, yet others do counsaile, in no case to set your house nere a Marsh, or a great Riuer: for the Fens and Marshes, in the heat of the yeere, do send forth pestilent and deadly dampes, and a great number of venomous creatures: which dying, for lacke of their olde moisture, infecteth the ayre, and breedeth sundry and strange diseases. Homer affirmeth very truly, that the ayre which in the morning cometh from the Riuer, is very vnhollesome and dangerous: and therefore if the house must needs be built nere a Riuer, they would haue such heed taken, as the Riuer rather stand on the backside of the house, then before it: and that the front of the house be turned from the hurtfull & vnhollesome winds, and placed towards the healthiest quarters. Since all waters commonly with dampish vapours in Sommer, and stinking cold mists in Winter, except they be well purged with wholesome Windes, do infect both man and beast with pestilence: best is it therefore in good & healthy places, to set the house toward the East, or the South, & in suspected aires to place them against the North. From the Sea it is good to be as far as may be, because the winds that blow from the sea, are vnhollesome, and the space lying betwixt you and it, yelds alwayes a loathsome aire. You must beware besides, that you set not your house by any great hie-way, lest you be molested with passengers, and troubled oftentimes with moze guests then you would haue.

R I G O. As far as I remember, old fellows did measure the goodnes of their dwelling, by the qualities of their neighbours.

C O N O.

Neighbour-
hood.

C O N O. You say very well : indeed I had almost forgotten it, a froward knaue to a mans neighbour, is not one of the least mischiefes, as shall be sayd in the end of this booke. I haue knowne sundry god men, desirous of quietnesse, that haue forsaken good dwellings, rather then they would abide the iniuries and troubles of such companions : wherefoze Hesiodus had some reason in saying :

As great a mischiefe is a froward knaue,

As is the ioy a neighbour good to haue.

But you maruell what I meane by such a long preamble, surely I am the longer in this matter, because you should vnderstand the reason of building of my house. For whereas there are sundry purposes of building; some build for pleasure, some for wantonnesse, and some for necessitie, I thought it good to recite the minds of the old writers, concerning the building of a house. And when as euery one will not suffer such curiositie as they require in the placing of a house, some building vpon riuers, some without or within the Marth wals, who cannot shun the neighborhood of the riuer or the sea, some in lakes, some in woods, & some building vpon mountaines, are driuen to supply the defect of nature with art & industrie: I my selfe, sith I can by no means auoid the nexe necessity of the riuer, do fixe as much as in me lies, to turne away the discommodities: and because I feele the discommoditie of the rising of the floods, I haue set my house in this place without the bankis, & mounted it as high as I could: and lest the rage of the water, and force of the ise should beare it away, I haue planted round about it great trees: and that I might shun the dampes of the ground, and the blasts of vnwholsome winds, I haue turned my doores and my windowes to the wholsomest quarters.

R I G O. Surely, either you, or your ancestors haue both commodiously and handsomely placed this house; for the front is double, one part looking towards the East, the other towards the South, and so built with Galleries and Gables, as if both receiue the Sunne in Winter, and the shadow in Summer : besides, you haue a faire Porch as you enter in, that keepeth away the winde and the raine from the doore.

C O N O. All the one side, if you marke it, where the front is,

The first Booke, entreating

lieth South, receiuing from the first corner, the rising of the sun in Winter, declining somewhat from the West, whereby it is warme in winter, and not troubled with ouer-great heat in sommer: for this kinde of building hath an equall medly of the winter winde & sommer winde, so that it receiue the cole winde in sommer, and is not subiect to the bitter blasts in winter.

RIGO. Some part of the building, me thinketh, is after the Italian manner.

CONO. Some part of it being ruinous, I built after my fantasie, and such as I found sound, I thought enough for mee to keepe in reparations.

RIGO. I pray you, proceed to describing of the rest. This base court seemes to be after the Italian fashion, with two gates.

CONO. This Court I thus deuised my selfe. Here was a kind of Court befoze, but not so commodious: therefore I made a square wall here with a great gate, for the bringing in of my carriages, & a lesser for people to passe in & out. In the void place here besides the porch, I haue made a litle walke, couered with a Vine, with diuers seats in it for shadow, where I many times walke & talke with such suters as I haue: I haue in it a table of stone to sup vpon when I am disposed.ouer against the gate, as you see, at the south side of the Court, there is a Bake-house, & a Conemill, with Duens for bread, & other baked meates, there is also a Brewhouse, with an Oast for dyping of malt to make beere with.

RIGO. Surely, all very handsome, and in very good order.

CONO. These offices (for feare of fire) you see, are all seuered from the house: there is hereunto adioyning a faire Well, which besides the seruice here, doth also serue my Kitchen, and other houses of office: for within the house, I haue neither Well nor Fontaine, which is a great discommodity, such as I would giue a great deale of money to remedie, both for health & colence in sommer and for watering my Gardens & Orchards. Water is one of the principallest things to be cared for, as the greatest cause of health both in man & beast: but this want is supplied partly by a good Well without, & partly by Cisternes, receiuing the raine water that falls in certaine Conduits and Pipes, which water is most wholesome for the body: and beside, the riuer is not far off.

RIGO.

RIG O. Come on I pray you, let vs see this back-house, I heare that you haue a new fashioned Mill, of your owne deuise.

CONO. You shall see it. When as in a great house, there is great need of Cozne milles, and the common Mills, being farre off, the way foule, and I at mine own libertie to grind at home, or where I list, thinking to make a Mill here at home, when neither place nor authoritie will serue mee to build either a water mill or a wind mill, and a Querne, or a hand mill, doth but a litle good: and to build a horse-mill were more troublesome. When I saw the wheeles that they vse to draw water with, turned with Asses or men, I thought in the like sort the wheele of a mil might be turned, & after this sort deuised I this engine, which a couple of Asses, guided by a boy, doe easily turne, and make very fine meale, sufficient for mine owne house, and most times for my neighbours, whom I suffer to grinde toll free.

RIG O. Surely I like well your deuise. What will not the diligence of man bring to passe?

CONO. I finde it profitable vnto me, but because it is not the speediest way of grinding, I haue beside a horse-mill, which if need require, is turned about with a Jade or two.

RIG O. Lo, here is a great lead placed handsomly in a brick furnace in the corner, which I thinke serueth to brew withall.

CONO. Indeed, to that end it is most occupied, but it serueth other turnes beside.

RIG O. There is a Hopper (me thinketh) ouer the top of the Dast: where to serueth it?

CONO. It serueth to conuey downe the Malt, after it is watered vnto the hairecloth, where it is dyped.

RIG O. Wherefore serueth that great Tunne?

CONO. To water the Barley in, when need is, otherwise it serueth for a mash vat. Hereby is a bake-house, and a pastrie with two Duens, one seruing for household bread, the other for manchet for mine owne table, and for tarts and fine bakemeats. Here are also troughs to keepe meale in, and troughs to lay leauen in, and there is a safre table to mould vpon.

RIG O. All is handsome: but what meanes this building about your Court?

The first Booke, entreating

sheds, Tunnes, & Coffers, for Wine, Beere, and Water, Pipes, Tonnes, and such like, shall likewise be shewed you, when you come to the Warehouse, & Warehouse: with Colcrakes, Sives, Sercers, Boulting-stubs, Boulders, that you shall see in the Back-house, and instruments for all other purposes, laid by euery one in his place, till they be to be occupied: for it is very necessary to haue of euery sort two, as the number of your seruants and necessitie requires, that if one be lost or broken, you be not driuen to goe a borrowing, or to leaue your worke, when by your men shall be idle, while your toles be a seeking: for to runne euery day to get new, is not for a husbands profit. Beside in the mean time your seruants loiter, and lose more then the value of their toles.

R I G O. Truly they be all placed in good order.

C O N O. I place first by themselves, such as are most in vse, that they may be the readier, & next to them, such as be occupied once a moneth, or in a yere: I giue the keeping of them all by tale, to my steward or my bayliffe, that they may deliuer them out as need is, and lay them by againe, and charge them in any case to looke to them euery moneth, that they may mend what is amisse in them.

R I G O. Order is a lolly fellow, and no goodlier a thing in a man, then to do euery thing orderly, and to lay by euery thing in such order, as it may readily be found: of which, a singular example doth Icomachus shew in Xenophon, in his Phinician barke, wherein a wonder it is to see what a deale of stufte hee had bestowed in so small a vessell: he carried with him all the furniture that a man should need, and euery thing in such order placed, as they were at hand when need was, without any trouble.

C O N O. I my selfe haue an inuentory of all my husbandry implements, and so hath my Bailly and his wife: my Steward hath the Key of the Warehouse, and deliuers out and receiues as I told you, what euery man needs: for I willingly neither borrow nor lend: I haue a neighbor or twaine, of whom sometime I borrow, and lend againe: but except them, to none, as Cato teacheth me.

R I G O. The same Cato also, as I remember, teacheth to know a mans husbandry by his toles, & therfore by your great number of toles, a man may guesse you haue a great deale of occupying.

C O N O. The double number of them makes the matter the greater:

greater : otherwise, if there were but to serue the turne they would not seeme so many.

R I G O. I pray you goe forward with your description.

C O N O. You see a voyd roome before the Kitchin, which is an entrie both to the Kitchin, to the Folkes chamber, and to the Dre-houces, so that if any misfortune happen to the cattell in the night, my men may speedily helpe them.

R I G O. The Kitchin is very well handled, in that you haue so well pargetted the roffe. The Kitchin.

C O N O. It is because I haue a great number of seruants, which for lacke of other roome, doe dine and sup here: beside, the pargetting or sooking, is a good safetic against fire.

R I G O. Here is a good handsome roffe by the chimney, well stozed with red Herring, Bacon, and Partilmas base, there is also a handsome Dincke by the Kitchin.

C O N O. This lefttised wall that you see, ioyneth to my Bay, fittes chamber, so that hee may see what is done in the Kitchin, and about the house. Whereunto is also ioyned my Larder, a vault Larder.

with thre roomes, one seruing for Butter and Milke, the other for Beere and Wine, the third for to keepe Flesh in : here haue I no windowes to the South, nor to the West, but all to the North, and to the East, because these quarters are least subject to corruption, and will longest preserue any thing. Aboue in the loft ponder, doe I lay my cozne, vpon a faire floze, closely fenced Cornelofe.

and sieled against Wile, receiuing the light by Lattisse windowes from the North. Ward by, is another loft very close, with like Appelofe. windowes toward the North, seruing for my fruit : for that quarter is cold, and not moyst, whereby it preserues best, both Meate, Come, and Fruit. Now if you will goe through this doze, you may behold the back-side of my house : loe here a faire thre-thing floze, whereupon my cozne is sundry times threshed, fan- ned, and winnowed, and many other things done, chiefly in the winter moznings ; though I haue beside a threshing place in my barne. On each side are lodgings for my Seruants, and other roomes and lofts for Straw and Fodder for my Cattell : and there by the Stables, are also Seruants lod- ings on euery side, and my Maides chamber nere the Kitchin.

The first Booke, entreating

and the washing house. You see this fort all closed round about, to the end that the cattell, when they be watered and put forth, while their houses be made cleane, may be in safety. And here I keepe also Geese, Duckes, Peacocks, Turkecockes, & other poultry. It is as you see, so enclosed with Stables, barnes, and other houses, that nothing can get out. Varro will in any case have two Courts, an inner court with a little pond in it of standing water, or running water, in manner of a Fishpond, and there he would haue Horse and Oxen, comming from the field, or stable, to be watered and washed, & to serue likewise for Sheepe, Swine, and Geese. In the vtter Court would hee haue a lake to cast in wheels, stauces, and peeces of timber, for instruments of husbandry, that they might there be seasoned. This Court he would haue often strawed with straw, and chaffe, that being trampled with cattell, it may serue to lay vpon the ground. You see in this court a double dounghill, one of them newly thrown out of the Stables, an other old, and seruing for the field: for new dounge is nothing so good as the old, for manuring of the ground.

R I G O. What meanes these twigges, bowes, and strawes, cast vpon the dounge?

C O N O. This preserues the dounge, that the iuyce that the ground requires, be not sucked out of the sunne: and hither also runs the water from the Laundry to moist it the better. Varro would haue here also a lodging for seruaunts: But least we tarry too long among the dounghills, let vs goe see the other buildings about the Court. These great rooms that you see, be Barnes to lay Cozne in: in some places they vse houses, in others againe, stacks, let vpon props, which they call molwes: but the houses are a great deale better. Next to the Barnes, are the Stables, standing arow round about the court. And because Virgil would haue the stable stand toward the South, and Virruuius, nere the fire, I haue followed their order in building my stables. And first haue I set here my stable for my cart-horse. I haue another stable nere my owne lodging, for my horses of seruice, and hackneies.

R I G O. What seemeth to be very handsomely built.

C O N O. The next are houses for my sheepe, & next them for kine, calves, and heylers. There is a hogstie with two rooms, one for

Barnes.

Stables.

for my sarrowing sowes, the other for Hogs, and boares. There is also a third stie, not farre from the washhouse, for the fatting of my Pokes: euery kinde hath their keepers lying nere them, that they may be at hand whatsoeuer chaunceth. Last of all, there stands my Haybarne, which hath in the vpper roomes my Hay, & beneath, waines, carts, carres, waggons, coaches, harrows, sleds, plowes, rollers, whœles, naues, yokes, rakes, plowbeames, and such like, which are there safe from wet, and from pilferers.

R I G O. I pray you, who doth looke to all this geare, and keepeth euery man to his worke?

C O N O. My Bailiffe, as I told you befoze, ouersœth both my worke and my workemen: besides, I haue a Steward that looketh to the receauing of my reuenues and commodities.

R I G O. Your bailiffe had need to be a skilful and trusty man.

C O N O. You say true, for as Xenophon saith, the choyse of a Bailiffe and a Phisition ought to be one: you must choyse such a one, as being a very expert husbandman, may wel be able to take the charge, and not to be ignorant of those things himselfe, that he commandeth others to do, for nothing is well taught or learned, without example. For as Cato saith of a husband of the old Campe, it goeth ill with that master whom the Bayliffe must teach. As Iscomachus being demaunded of Socrates, whether hee would buye a Bayliffe, as he would hire a smith, or rather teach him himselfe at home? He answered, he would haue him of his owne teaching.

The
choise of a
Bailiffe of
husbandry

R I G O. But this is after the old worlde, wherein no man was vnskillfull: but it is a wonder, how you that haue alwayes bene brought vp in princes affaires, could in these dayes (when very few, except plowmen, and such as haue no other trade of life, haue any skill in it) apply your mind so vnto it, as a man would thinke you had neuer minded any other profession.

C O N O. Surely, I thinke he shal neuer haue a good Bailiffe, that is not able himselfe to iudge skillfully of him: nor let him euer thinke to haue his worke well done, that knoweth not how, nor which way things ought to be done, but must be faine to learne of his man: for there is none can iudge of a worke, but a worke-ma. Therefore in the choyse of a Bailiffe, I would haue foure things

The first Booke, entreating

What
things
ought to
be in a
Bailiffe of
husbandry

things chiefly considered: that he be louing, diligent, meet to rule, and trustie, & if you will adde a skil, I am well contented, that is, that he be not giuen to drunkennesse: for a drunken man loseth with his memozy, the regard of his dutie. I do not enquire whether hee haue bene brought vp ciuilly or daintely, but I would haue him a hard fellow, brought vp from his childhood to labour, and one that were thoroughly well skill'd, of a meane age, that he be not vnwilling to worke for youth, nor vnable to trauaile for age. I would haue him haue some skill in carpentrie, that if there happen to be any thing broken about his Stables, his Carts, or any other his instruments, he might speedily mend them, & that he could mend Nails and Hedges. I would haue him also not vnskillfull in the diseases of Cattell: such a one as hath bene brought vp with skillfull husbands, will proue meetest to haue charge. For there be a great number, that though they be skillfull enough in their profession, yet haue they not government in them: but eyther vsing too much sharpnesse, or too much gentlenes towards such as be vnder them, doe hinder the profit of their master: and therefore I would haue a Bailiffe well tried before he be taken: neither is it onely to be sought, whether he be skillfull in this craft, but whether he be trustie and louing to his Master, without which, he is not worth a rull, though his skill be neuer so great. And chiefly he must be skillfull in this, to know what worke is meetest for euery man: for some works require strength more then skill, and others, otherwise. And therefore in appointing of these, he ought to haue great iudgement & good discretion, which hee cannot haue, except he haue good skill. Therefore a Bailiffe is as well to be taught, as a Smith, or a Carpenter: and the knowledge of husbandry is greater & of more difficultie: Wherefore I mervaille, that in this so necessary an occupation, there are found so few Masters and Apprentices.

R I G O. Perhaps the tediousnesse and hardnesse thereof detteth them away.

C O N O. Why? haue not Oratozs bene likewise dettuen away? for, as Cicero saith, there hath bin no perfect Oratoz found.

R I G O. Of whom would you haue your Bailiffe to be taught?

C O N O. Your question is good, I will shew you, though very
few

few haue taught what belongeth to a husband in all things, neither shall you finde many skilfull in euery poynt. Therfore he that shall be a Bailiffe, must be taught by degrees, he must first begin when he is a child, with keeping of Sheepe or Swine, and when he is elder, with Dreames of Cattell, and keeping of Horses: he must learne next to digge, to thresh, to set, to sowe, to hedge, to build, to mend such things as are broken, to play the butcher, to giue drinckes and medicines to sicke Cattell, and such other like things. And thus must he proceede from one to another.

The training of a Bailiffe.

RICO. You shew mee wonderfull Philosophie.

CONO. As I said at the first, his best age is betwixt thirtie and threescore: for the flames of lusty youth beginning to abate, he will not be so hot in his wooing: for whiles he followes that game, he will haue no minde but of his minion, neither shall any reward be so welcome vnto him, as the fruit of his fancie, nor any grieue so great to him, as the failing of his desire. If he once passe threescore, he wareth slothfull & vnable to labour: for I had rather haue the worke of a painefull & diligent Bailiffe, then the seruice of a great number of slothfull lubbers: as he that had rather haue a Lion captaine ouer Harts, then a Hart captaine ouer Lions. This must chiefly be looked vnto (since rarely going to worke is a great matter) that the Bailiffe be a good riser, & that, supplying his Masters place, he may be first vp in the morning, and the last that goeth to bed, & that he see the doores fast locked, and euery man in bed, that the cattell haue meat enough, & be well littered, that he set forward, according to the time of the yeere, such as do loyter in their labor, that he himselfe go lustily befoze, that he suffer no man, after it is day, to lag behind, but that they follow the Bailiffe lustily with a courage, as if he were their captaine in a skirmish: and that he vse sundry deuises to cheere them vp in their labor, sometime to helpe him that fainteth, to take his toole out of his hand, & labour lustily befoze him. And as a carefull Shepheard, rarely carrying out his sheepe, & bringing them home late, looketh that he leaue none of his stocke behinde him: so likewise ought a good Bailiffe to carry out his men, & to haue good regard ouer them. If any of them be hurt or sicke, let him looke to the dressing of them, and if they be very sicke, to carry

them

The first Booke, entreating

them to the sicke folkes lodging, & to see that they be well ordered: and to that vse haue I built yonder house that you see removed from the other buildings, that the sicke may be had thither & looked vnto, specially if their diseases be contagious, least other should be infected. It is the Maisters dutie to haue such regard of the health of his seruants, that their sicknesses may be prevented by good medicines & good looking to: as to see that their meate and drinke be wholesome & good, and giuen in due season: beside, that the Wayliffe eate his meat with them, and not by himselfe, wheremy it shall be the better ordered. And because Physicians are not alwayes at hand in the country, it behoueth to vse such remedies, as experience hath taught, & such as haue holpen others of like diseases. Those that labour in the Sunne (because the Sunne hurteth the body & vaines) their diet must be the thinner, that they make not too great meales, but eate litle and often: this order keepeth them in health, & helpeth digestion. Some do vse to giue Wormewood-Wine, or pottage made of Wormewood. It is very necessary for them somtimes to recreate themselves, so that in the meane while they giue not themselves to naughtinesse. There must be heed taken, that they drinke not when they be hot, nor lye vpon the cold ground: if their water be not good, it must be well purified. It is very good also to let them drinke barley water. We must remember that seruants be men: besides, such good looking to, will breed a greater good-will & dutie, and lightly they will serue the faithfuller and better when they haue their health, which haue had good cherrishing in their sickness: and besides (which is not well obserued in greater gouernors) the Bailiffe must beware that he deale not too cruelly, nor too gently with them, that he alwayes make much of those that be diligent & painefull, that he be not too hastie with the worse sort, that they may rather reuerence him for his severitie, then hate him for his crueltie, which he shall easily bring to passe, if he rather beware that they offend not, then after their offence, too late, to punish them. For there is none so good a bridle for an euill disposed person, as to let him alwayes be occupied. So that Caroes saying hecerea is most true, that men in doing nothing, learne to doe euill. Let them haue their allowance, and their
meat

meate in due season, let them alwayes feed together in one place, and the Bailiffe with them, that he may be an example to them of all thurstines. If he finde any of them to haue laboured painefully and truly, let him giue them a good countenance, and encourage them with rewards, to make them the willinger to doe their dutie: beside, let him looke that they bee rather well clothed, then curiously apparellled, that their garments may keepe them from the colde & the raine: let their wages be well paid them, that the want thereof be no excuse for them to loyter in their labour. And as meate and apparell is necessary for them, so likewise is correction. For the wise man saith, giue a Horse the whip, an Ass the snaffle, and a Foole the rod. And againe, hee that deales too gently with his seruants, shall make them in the end stubbozne and froward. Aboue all things let him see that they feare God, let him in no wise suffer them to swear, or to blaspheme, nor to vse filthy or vngodly speech: but let him prouide that they bee instructed in the Catechisme, that they vse prayer, that they goe to Sermons vpon the holy dayes, and receiue the Sacraments at times appointed, that they be not hunters of Alehouses or euill company. For, as the Poet sayth, it is lawfull to be well occupied, euen on the Festivall daies. When they haue serued God, & dined, let them walke abroad in the ground, let them looke there be no Cattell in the Cozne, and stop such gaps as they finde open, and looke that their Cattell be in safety abroad. To be short, the Bailiffe must in all these matters be, as it were a Bishop, or a Master of the workes, so shall euery man the better doe the worke that belongeth vnto him. The Bailiffe must neuer be from their heeles, least in his absence they fall to loytering, neither must hee suffer them any time to be idle: hee himselfe must not be giuen to drinking or gaming, nor to hunting or fishing, except for his masters profit: let him very seldome entertaine any guests, except they be of his masters retinew: let him not bestow his masters money about his owne merchandize, for such kinde of bargaining makes him the slacker in his dutie, and maketh his accompts seldome fall out iust. Aboue all things this is to be wished in the Bailiffe, that he do not thinke himselfe wiser then his master, or suppose himselfe to haue more skill then
 he

The first Booke, entreating

he hath, & that hee alwaies seeke to learne such things as he is ignorant of. For as it is very profitable to do any thing skilfully, so is it moze hurtful to do it vntowardly. Columella had rather haue a Bailiffe that could neither read nor write, so that his memory be good: for such a Bailiffe (saith he) will efrner bring his Maister mony, then a booke: because (not able to write) he cannot so easily frame a false account. The Bayliffes wife must alwaies be with him, that she may keepe him from running at rouers, and may helpe him in his labours: her age must be such also, as we required in the Bayliffe befoze, she must be painful, healthy, careful, & honest, she must not be too ill fauored, lest she be loathsome vnto him, nor too beautifull, lest hee doat too much vpon her, and keepe home when he should be abroad. Shee must in the meane time looke to the Kitchin, and to other woorks at home, gouerne the Maides, and keepe them at their woork, looke to their necessaries, and giue them their allowance.

The Bay-
liffes wife.

R I G O. You sieme to me here, to make the Bayliffe a Maister, and the Maister a Bayliffe.

C O N O. This age of ours, quite corrupted with delicacie and daintines, little regardeth the honest & profitable orders of our forefathers: for in those daies the Maisters themselues plaid the husbandands, & thought it not to goe well with that Maister that must be taught by his Bayliffe, as Cato witnesseth, & Varro also complaineth, that the husbandands in his daies had forsaken the plow & the sith, & gotten themselues within the walls, and spent their time rather in maygames & midsummer sights, then with tilling the ground, or planting of Vines. Therefore Cato & the old writers, do attribute many things to the Maister, that we assigne to the Bailiffe. And I, though I seeme to put the charge of the household in the hands of my Bayliffe, yet wil I my selfe be overseer, and haue euery thing done as I appoint, entreating gently (as I taught the Bayliffe afoze) both the Bailiffe & my labourers, regarding moze their labour then my gaines. But I carry you about too long, being fasting, I pray you let vs goe to dinner: you shall not dine at Court to day, neither meant I to shew you, as you see, the palace of Lucullus, but the poore cotage of Cincinatus, Abdolominus, or Lactes. Here you see the rooms for my husbandmen,

Seuered

seuered from mine own house, but yet so, as I may easily see what they doe. Here I and my wife, with our household seruants lie.

RIG O. All very excellently well as may be, there is nothing wanting that is to be wished for. Mistresse Metella, you trouble your selfe too much, like Martha, about the providing of your dinner.

METELLA. Not a whit Sir, you must be contented with Countrey fare, you shall neither haue red Wine, Marchpaine, nor Sturgion, nor any Courtiers fare: but an Egge, and a Sallet, a Pullet, or a peece of Lambe.

RIG O. This diet contenteth me aboute all other.

CONO. Fall to it then, and tell me how you like our countrey Wine.

RIG O. Surely it passeth either wine of Orleans, or Anio: I did not thinke to haue found so good a cup of wine in these quarters.

CONO. The husbandry, and good season of the yeere doth yeeld the same.

RIG O. Well, we sit too long at dinner: the weather being so faire and so pleasant abroad, it is a shame to sit any longer, but to walke out and looke vpon your ground.

CONO. The weather being faire, you bring a horse to the field (as they say) when you speake to me of going abroad: for I my selfe, if the weather or businesse do not let me, am euery day, according to Catoes counsell, abroad in my ground: & if it please you, I will carry you abroad and shew you my ground. You must not look to see the great countries of Metellus, or Lucullus, but the possessions of a poore country man, that contented with his state would be as he is, & would not change liues with the Emperour.

RIG O. I pray you let me heare your opinion of the field and the silture thereof: for I see you are a perfect husband, and nothing vnskillfull. I haue a great desire to heare some rules, and such as serue our turne best.

CONO. If it bee a shame for an apprentise at the Law, and a pleader of causes, to be ignozant of the law wherein he dealeth, a greater shame is it for a professoz of husbandry, to be vnskillfull in the ground whereon his whole trade lyeth. How is he able to iudge vprightly in husbandry, that knowes not whirly way to till

Of the tilling and husbanding of the ground.

The first Booke, entreating

The good nature of the husbandman.

his land: The professors of all other arts, do commonly keepe to themselves, such things as be the chiefe mysteries of their knowledge. Contrariwise, the husbandman reioyceth to haue euery body made priuy to his skill, & being demaunded in what sort he doth this and that, he gladly declareth his whole dealing in euery point: such good natur'd men doth this knowledge make. I haue order'd my ground here, according to the diligence of the old Fathers, rather then for the wantonnes of these times. Therefore

The degrees and sorts of ground,

I will first shew you their opinions, and afterwards mine owne fancie. First, Cato appointed nine degrees of the land in Italy. The first, the Vineyard, that yeldeth much and good wine: the next the well watered Garden: the third, the Willow Grove: the fourth, the Olive trees: the fifth, for Meddow: the sixt, Corne ground: the seauenth, for Copie ground: the eight, for Timber trees: the last for Past. But these degrees, as Varro sayth, are not generally allowed of, neither haue we the vse of them all in these countries: but make most account of such land, as serueth for Garden or Orchard ground, Corne, or Fishponds. Of Corne ground I will first entreat, and afterwards of Pasture, Medow, Wood-land, and Willow Groues.

Of Corne ground.

R I G O. I pray you then take the paines to shew the nature of it, and which way the best ground may be knowen.

C O N O. Cato counteth that the best ground, that lieth at the foote of a mountaine, being leuell, and lying toward the Sunne, as the whole countrie of Italie lieth. In colde and Northerly countries, it is good to haue the land lying East and South, least these two quarters, being bard off by any hill, the land be frozen with colde: but in hot countries it is better to haue the ground lye North, both for pleasure and health.

R I G O. They say it is needfull to know the conditions of euery ground.

How to know the goodnesse of the ground.

C O N O. It is so, and sooner shall you doe it, then the conditions of a man: for being well tilled, it will not deceiue you, but deale iustly with you. To know the nature of euery ground, Iscomacus in Xenophon, doth will you to marke well the plants and the yeld of the Countrie, except you will loose your labour or fight with God. Varro counsels you to looke whether there be

be in the land either Stone, Marble, Sand, Grauell, Kaddell, Chalke, Clay, Pebble, or Carbuncle, that is, ground ouer-heated and parched with the sunne, which will burne the rootes of what soeuer cometh in it. Also if it be wet or looeping ground, or subiect vnto other inconueniences, and such ground also, according to the nature of the soile, is good or euill. In some Countries stonie ground is altogether barren, specially for Corne and Fruit: In other places againe, they vse Stones in the manuring and bettering of their land, as in certaine places of Arden is to be scene. Theophrastus writeth, that the Corinthians did cast away all the stones out of the fields of Sarragosa, & there by made the ground the worse, when, the stones being away, & the country hot, there was no succour left to defend the ground from the extreame heat of the sunne. In other places in stonie and hilly ground, Ores do prosper well. In like sort also, in all Countries we must regard the layze of the Countrie, and the nature of the seed that we sowe: for Grauell in some places, is cast vpon the ground in stead of dung, & some things prosper best in grauelly grounds. In Barbary (as Columella doth witness) the very rotten sands exceed any other ground in fruitfulness: It is also something to the purpose, whether the grauell be white, red, or yellow: besides, some ground doth deceiue both with colour and quality. In some Countries the blacke mould is onely esteemed: in others, the fat red mould is thought best. In England, the chalkie ground beareth good corne, and pastures very well. In some places the thicke and the clammy ground is most fruitfull. In all these it is to be learned, what is best for the hilly ground, what for the vally, what for the tilled, what for the lay ground, what the moist seggie ground requires, and what the drye and barren. Also in planting, what ground is best for Vines, what for other trees, what delights in drie ground, what in moist ground. Virgil commendeth a mellow ground that is fat, and will soone be resolued, for such ground is tilled with smallest charge and labour: the next, that which is fat and stiffe, which greatly recompenceth the husbandman his trauaile and charges: the worst is, that which is drye, leane, and stiffe: for both it is tilled with great labour: and beside, neither answereth in his crope the husbandmans trauaile, neither serueth it for good meddow or pasture any time after, and therefore such ground is

The first Booke, entreating

Signes of the goodnes of the ground. not to be meddled withall. Also, the goodnesse of the ground is easily perceiued by perfect tokens: for, a clod sprinkled with a little water, if in working with the hand it be clammy, and cleuing, and sticketh to the fingers like pitch, when it is handled, as the Poet sayth, and breaketh not in falling to the ground, this beloveth a naturall fatnesse and richnesse to be in it: besides, you may know the mould that is good for Corne, if it beare Bulrushes, Thistles, Threleaved grasse, Danwort, Brambles, Blackethorne, and such like, as neuer grow but in good ground: as on the other side, lothsome and ill fauoured weedes, declare a leane and a bitter ground: Ferne, and withered plants, a cold ground, sad and heauie coloured, a moist and a wet ground: a raddel & a stony ground, is discerned by the eye, a stiffe and a tough clay, by the labour and toile of the Dren. A good token is it also of good ground, where the Crows & Pies follow in great number the Plow, scraping in the steps of the Plowman. The goodnesse is likewise knowen, if at the Sun setting, after a Rainebow, and in a showre of raine, following a great drought, it yeeldeth a pleasant saour: also in taste it will appeare: if tasting a clod that hath bene watered in an earthen vessel, you finde it swete, it is a signe of rich ground, if bitter, a great token of barren ground, if it be saltish, it is to be thurmed, and not to be vsed vpon the dounghill. You must remember also, that ground will sometimes change, and of fruitfull become barren, which hath bene seene, as Plinie reporteth, in the old time in Thesalie, and in our time, in sundry places of our Countrey. Beside, one kind of ground, though it be neuer so fertill, will not beare all things, as the Poet wisely noteth, Ne serues one ground for every crop. Moreover, the disposition of the Heauens is a great matter, all Countries haue not the weather and ayre alike: wherefore it is the part of a good husband to know the nature and propertie of his ground, and to marke the disposition of it for euery part of the yere: he must also consider what crop is best for euery layer. Some ground serueth for Corne, some for Aines, some for Oues, some for Heddlow, some for Pasture, neither may all things well be sown in rich ground, nor nothing in barren ground. Such things as need not much moisture, are best sown in light ground, as the great Caluer, Sperie, Chich, and the other pulses, that are pulked and not cut. Those that require moze sustenance,

Ground will change.

The disposition of the heauens to be obserued.

are sowne in richer ground, as Pot-hearbs, Wheat, Rye, Barly, Lin-seed. Some of them doe good to the ground the yere following, as Lupines that are sowed for the bettering of the ground. There is difference also to be put betwixt fruits for pleasure, and such as be for profit: as fruit trees and flowers, and such things as yeld both pleasure and sustenance, and are also profitable to the ground. You must chose for Willowes; Myrces, and Rodes, a wet and a marriish ground, and contrary where you will have Corne & Pulse, that delights in drie ground: Sperage and such like, must be sowed in shadowy places, and other ground for Ducksets, Timber, Past, and fwell: yea, such ground as is very grauelly and barren, hath his vse, where you may plant Birch, and such like, and watry grounds where you may set Alders, Bzome, and Bolrushes.

RIGO. Surely the temperature of the ayre, doth much in the fruitfulness of the grounds, for I haue oftentimes marked, that one kind of ground is more fruitful in one Countrey then in another.

CONO. In Vencfri, the grauell ground beares Oliues best, where as about Granado, they require the richest ground that may be. When in other places the Vine doth not prosper very well in stony grounds, about the Rhate the very ragged rocks doe yeld as fruitfull Vines as may be sene. Plinie doth witness, that in some places the Vines doe grow euen in the Fennes and Marthes, such a secret force is there in nature. About Chalcia, an Island about the Rodes, it is said there is a picce of ground so fruitfull, that they mow their barley being sowed in his season, and their Crophe, sow it againe, and gather it with their other graine. The Albanoyes receiue the fruit of their land ἀπαρτα κῶν ἀνθοτα. vntilled and vsowen, and being once sowed, it yeldeth his crophe thre yeres together. Homer calleth Phugea ἀμπελοείασι, & Argos πολύπορον. Hedororus writeth, that Babilon is so fruitfull, as the ground yeldeth increase two hundred & thre hundred fold. Plinie affirmeth, the increase in his time to be fiftie, & to good husbands an hundred fold. About Monte Gibello, it is reported by credible persons, to be an hundred fold. Italy is so fruitfull, that Varro calleth it the garden of the world, because it is so fertile & wel planted in euery place. Campania, being full of corne: Apulia, plentuous with wine: and Vencfri, abounding with Dyle.

Italy, the
garden of
the world.

The first Booke, entreating

The fruit-
fulnesse of
Germanie

R I G O. I haue heard say, that Germany & France haue not bene in times past very fertill, and that they haue bene altogether without Vines, & now we see no country more fruitfull, that yeeldeth greater abundance of all things. Where can you finde better wines, then about Bauacr and the Rhine? I speake not of their great store of graine, Mines of gold, siluer, iron, and lead. In the countrie of Thurin in Germany, it is sayd, that after wheat once sown, the ground will yeeld three of it selfe two yeeres together.

C O N O. Yea, and in our Countrie here, we haue ground that will beare Wheat every yeere. Rape-seed being once sown with vs, doth oftentimes yeeld his Crop two yeeres together, without sowing or labouring.

The fruit-
fulnesse of
Barbary.

R I G O. Under the Pozthzen Pole, it is reported, the ground is so fertill, as they sowe in the Morning, and reape at Pone. In Barbary, where the ground is low, they plant vnder the Date tree the Olive, vnder the Olive the Figge tree, vnder the Figge the Pomegranate, vnder it the Vine, vnder the Vine they sowe Wheat, and vnder wheat Pulse, all prospering one vnder the others shadow, and yeelding their fruit the same yeere.

C O N O. That made me to say, that the ground followes the disposition of the heauens.

R I G O. But sith in all places the ground is not of like goodnesse, what if we chance vpon a leane and a barren ground, as heathy, bushy, and grauellly grounds: may these be made fruitfull, and mended by Art?

C O N O. Verely well, there is no countrey that the most gracious Lord hath left without sufficient yeeld, if labour and trauell be not refused.

R I G O. That skill I would gladly vnderstand.

Of dung-
ing of
ground.

C O N O. It is brought to passe diuers wayes, principally by dunging and diligent labour: and to this end serue those heapes of dung that I lately shewed you.

R I G O. I pray you let me know what dung doth most enrich the ground.

The sorts
of dung.

C O N O. Varro and Columella his follower, appoynt three sorts of dungs; the first of Poultry, the next of Hen, the third of Cattell. Of the first sort, the best is that which is had out of Douer houses, the next is of Pulline, & all other fowle, except Geese and Ducks,

Duckes, which is hurtful. The people in the old age had such store of Poultry and Fowle, as the dung of them sufficed for the manuring of their ground. The next to this, is mans ordure, if it be mixed with other rubbish of the house: for of it selfe it is too hot, and burnes the ground. Mans urine, being six moneths kept, and powdered upon the rootes of Apple trees and Vines, bringeth great fruitefulness to the trees, and giueth a pleasant taste to the fruit. In the third place is the doang of Cattell, whereof the best is the dung of Asses, because this beast doth chaw with most leasure, whereby his meate being well digested, is made the profitabler dung. Next to this, is the dung of Sheepe, next of Goates, then of Oren, and Horses: the worke of all of Swine, very hurtfull to Corne, but vsed in some places for Gardens, for lacke of other dung, but is a great breeder of noysome weeds: yet Plinie saimeth to allow it, as the filth of a filthie creature. The dung of Horses likewise, where the Horses are fed with Barley, doth breed great store of weeds. The Lupine, before he beare his cob, is most commended, being turned vp with the Plow or Mattocke, and layd in bundels about the rootes of Trees or Vines. Where they haue no store of Cattell, they vse to mend their ground with straw and Ferne, & with the stalkes of Lupines, and the branches layd together in some Ditch: hereunto you may cast Ashes, the filth of sinkes and priues, and straw, with dust and other things raked together: but in the midst, you must lay some sound matter against the breeding of Adders & Snakes: also Hemlockes, Wallwort, and the weeds growing about willow Trees and Ferne, with other such rotten weeds, you may gather and lay vnder your Sheepe. They that dwel in Gravelly and Heathy grounds, doe take the Turues of the Earth and the Heath, and laying them in heapes powdered with a little dung, suffer them to lye and rot, and after lay it vpon barren ground, but specially where they keepe great store of Sheepe, they cast into their folds such Turues pared from the ground. Columella counts them but euill husbands, that haue of euery one of the lesser kinde of Cattell, lesse then a Cartload of dung in 300. dayes, & each of the greater sort ten load, beside the filth and dirt of the yard. This is also to be noted, that the dung that hath line a yere, is best for Corne, for it both is of sufficient strength, and breedeth lesse weeds, but vpon Meddow and Pa-

Urine.

Old dung
best for
Corne,
an new
dung for
Meddow.

The first Booke, entreating

This drawing with the head, is vsed in the vpper parts of Fraunce & Spaine.

The like is vsed with vs in Norfolke, and Lincolnshire.

Dead mould.

When you worke, your Oren must be yoked euen together, that they may draw more handsomly with their heads at libertie, and lesse hurt to their neckes. This kind of yoking is better liked of many, then to be yoked by the hoznes: for the Cattell shall be able to draw better with the necke and the breast, then they shall with their heads: and this way they put to the force of their whole bodies, whereas the other way (being restrained by the yoke on their heads) they are so grieued, as they scarcely race the vpper part of the earth. Where hozses may be vled, their vble is more commodious for the Plow, and the sewer of them the better: for many hozses draw too hastily, & make too large Furrowes, which is not good: whereby wee see the ground to be excellently well plowed in Gelderland, & about Coleync, where they plow alwaies with two hozses, going very softly. In Fraunce, and other places, where they plow with Oren, they make their Furrowes rather deepe then broad. Where the ground is stiffe, the coulter must be the greater & the stronger, that it may goe the deeper: for if the crust of the earth be turned by very broad it remaineth stil whole, whereby neither the weedes are killed, nor the ground can be well harrowed. The Furrow ought not to exceed one hundred & twenty foot in length, for if it doe, as Columella saith, it is hurtfull to the beasts, because they are too much wearied withall: but this rule, where the fields are large, is not in many places regarded, as in the Countrie of Gulicke, where the fields are great, their Furrowes are drawne very long. You must not plow in wet weather, nor wet ground, nor when after a long drought a little raine falling hath but wet the vpper part, & not gone deepe. If it be too wet when it is plowed, it doth no good that yere. You must therefore haue a regard to the temperature of your season, that it be neither too dry nor too wet: for, too much moisture maketh it too durtic, and too great drynesse maketh that it will neuer worke well: for eyther the hardnes of the Earth resisteth the Plow, or if it do enter, it breakes it not small enough, but turneth by great flakes, hurtfull to the next plowing. For though the land be as rich as may be, yet if you goe any depth, you shall haue it barren, which is turned by in these great cloddes, whereby it happeneth that the badde mould, mixed with the good, yieldeth the worse Cozne.

Where...

Where you haue plowed in a dry season, it is good to haue some moisture in your second stirring; which moistning the ground, shall make your labour the lighter. Where the ground is rich, and hath long bozne water, it is to be stirred again when the weather warrth warme, and when the weedes are full growne, and haue their seedes in their toppe, which being plowed so thicke, as you can scarce see where the Coulter hath gone, vtterly killeth & destroyeth the weedes: besides, through many stirrings, your fallow is brought to so fine a mould, as it shall need very little or no harrowing at all when you sow it: for the old Romans, as Columella witnesseth, would say that the ground was ill-husbanded, that after sowing had need of the harrow. Discover the good husband must trie whether it be well plowed or no, & not onely trust your eyes, which (the balks being covered with mould) may easily be deceived, but trie it with your hand, (which is a certeyn proofe) by thrusting downe a rod into the furrow, which if it pierce alike in every place, it sheweth that the ground is well plowed. If it be shallow in one place, & deepe in another, it declares the ground to be evil handled in the plowing. If you are to plow vpon a hill, you must plow ouerthwart, & not vp and downe; for thereby the inconuenience of the steepnes is met with, and the labour of both man and Cattell is lightned: But herein you must beware, that you plow not alwaies one way, but sometime higher, sometime lower, making a slope as you shall see cause. Touching the season of your plowing; it must be chiefly in the spring, as the Poet wel teacheth: When as the pleasant spring, &c. For in Summer the ground is too hard and churlish, and in Winter too soule and dirtie: but in the Spring, the ground being mellow, is easily to be wrought, and the weedes are then best turned in, which both do good for the enriching of the ground, and plucked vp by the rootes before they haue seeded, will neuer spring againe. And therefore with vs, we vse to begin to plow about the middell of March; but in sandy and light ground, they vse to plow in the middell of winter, if the season wil suffer. Plinie is of opinion, that stiffe ground also should then be stirred. A slender and leuell ground, subiect to water, would be first plowed in the end of August, & stirred againe in September, and prepared for sowing about the twelfth of March. The light hilly ground, is not to be broken vp in Summer, but about the

Triall of
good
plowing.

The plow-
ing of a hill

The best
time of
plowing.

Calends of September: for if it be broken by afoze, being barren and without iuyce, it is burnt by with the Sunne, and hath no goodnesse remayning in it. Wet ground, some would haue broken by after the Ides of Aprill, which being plowed at that time, should be stirred againe about the tenth of June, and after againe, about the kalends of September, according to Columellacs minde. But those that are skillfull in husbandry, agree that after the tenth of June, without great stoze of raine, you shall not plow: for if the yere be wet, there is nothing to the contrary but you may plow in July. In the meane time, beware that you deale not with ground ouer wet, as I gaue you warning before.

R I G O. May I plow in the night, if I list?

Plowing
in the
Night,

C O N O. Yea, very well, in Summer time, and in hot countries you may begin in the evening, and continue till the Sunne rise, that the moisture and fatnesse of the ground, may remaine shadowed vnder the clod: and that the Cattell through ouer much heate of the Sunne, be not diseased nor hurt. How oft you shall plow the ground that you meane to sow, partly the nature of the soyle, and partly the condition of his sēde will teach you, as when we come to it, I will tell you: for it is not needfull to stir a grauelly and a light ground, so often as the stiffe ground: yet we finde, that land, the oftner it is stirred, the better it beares. So that for some sēde, you must not onely twyfallow, and thre fallow your ground, but also foure fallow it, as they vse in the fruitfullest places of Italy and Germanie. In Misnia and Austria they plow but twise. Stiffe ground, as they commonly doe in Italy, is best to be sowed vpon the fift stirring: in Tuscan, vpon the ninth. Thus hath euery Countrie, both in this, and other matters, his fashion, according to the nature of the ground.

R I G O. But may I not sowe one pēce of ground euery yere without resting?

C O N O. There are some grounds you may sow pēceis, as in Italy, and in Austria, & likewise in some parts here about the Riuier, that are fruitfull either by nature, or by ouerflowing. In other places you must obserue the old saying of the husband, Take not too much of your ground. Virgill would haue ground rest euery other yere: which if you haue stoze of ground, out of all doubt is best. Whereof had the ground that is sowed euery yere, his name

in the old time: but commonly euen the best ground requireth
 rest the third, the fourth, or (at the farthest) the fifth yeere. Varro
 writeth, that in Olynthia the land beareth every yeere, and every
 third yeere most plentifully. But if you will do well, you must let
 it lye every other yeere, according to the nature of the soyle, or else
 solue it with lighter sode, that soketh out lesse the substance of the
 ground, as Lupines & others, that we will shortly intreat of. It is
 also much to be considered, whether the ground that you plow be
 lay ground yearly solue, or fallow: If you break vp new ground,
 if it be rich, heavy, and prepared for seed, it sufficeth to plow it once,
 and to sow it immediately, and harrow it. If it be light & grauelly
 ground, you must thypfallow it, specially at the first breaking vp.

R I G O. Here you speake of diuers tearmes belonging to this
 trade, I pray you make me vnderstand them, before you proceede
 any farther.

C O N O. This Art, (as likewise all other) hath certaine words
 peculiar, and belonging to it selfe: and because sundry men of good
 learning haue herein bene deceiued, lest my matter should be
 marred with darke and strange tearmes, I will declare the words
 as playne as I can, digressing a while from my former speech.

R I G O. I beseech you heartily.

C O N O. We take Agrum, a Field in our speech, not for a Ju-
 risdiction, a Diocesse, or a Shire, as the old lawyers take it, but with
 Labolenus & Florentinus, we count it a parcell of ground, either ea-
 rable or pasture. Ager, Arous, or Aruum, we call earable ground
 that is to be plowed and solue. Varro would rather haue it called
 Aratum, and not Satum. The Field that is called Restibilis, is that
 which is reuued, and euery yeere solue, called of the Greeces
 παλωφρις, because his fruitfulness continueth to the next yeere,
 and yeldeth his croppe every yeere. Ager Noualis, is called of
 Varro, the ground that hath bene solue and fallowed: of Plinie
 counted to be solue euery other yeere: with the Lawyers it is
 counted ground new plowed, that hath lyeen a yeere: we according
 to the vulgar speech (for we must speak with the most, and Judge
 with the fewest) doe call Nouale Agrum, that which is new
 broken vp, and hath not before bene plowed, wherof cometh
 Noualium Decima, the Tithes of new broken-up land: yet I
 know there are some learned that count it that, which after his

Diuers
 Latine
 words be-
 longing to
 husbandry
 interpre-
 ted.

Agri Poca.

2 The first Booke, entreating

crop lies lay. Veruatum is of Varro taken for that ground, that in the spring time is turned vp, and hath bene for a while sward. Ostentitas is this also called Nouale, both the field that hath lien a yere, and that which is broken vp the first spring: for thus saith Varro: There is great difference whether you sow in burnt ground, or in that which is yere sowne, and is called Restibilis, or in that which hath lien a while, and is broken vp in the spring. Moreover, both Columella and Plinie do vse, not seldome, Veruatum, for ground new broken vp in the spring, taking their reason of the time. The field is said to be plowed, to be stirred with the plow, when it is turned vp. It is broken vp when it is first plowed, lying in great clods. The second plowing is called Offringere Agrum, or Iterare, to plow againe: Terriare, to thysallow it. Ager iterarius, and terriarius, be vsuall words with Columella and Plinie. Nouare, is to change the ground, well husbanded before, and to plow it and prepare it for the sowing. Occare, to harrow it as Varro saith, is to breake it, as there remaine no clod. The harrow is an instrument crosse lettused, to breake the clods withall, and to couer the seedes. Cratire is likewise used in the same signification. Arrare is, when that which is sowne and come to some growth, is turned in with the plow. Plinie calleth Arrare, as if were Aratire, to plow often that which is sowne. Sarrire, is to purge with the rake. Runcare, is to wade out of the ground noisome weeds, for which is also used Aucruncare, & Deruncare: and of Columella, Exherbare, Passinare, and Repassinare, is to digge about the Vines. Passinum, is a forked instrument used in the planting of Vines. Lirare and Occare, are almost one, where we plow, so as we leaue betwixt two Furrowes a Ridge, for the drie keeping of the graine, like a garden bed. And hereof is the spate called Lira, a Ridge, which the husbandmen cal Porcas, because the place being raised high, defendeth the cozne from the water, and Lira Hortensis, a bed in a garden. Scamnum, a balke, is the grosse earth that hath scaped the plow. Plinie willeth, that there be no balke made, nor great clods remaining, meaning the great turffe that is turned vp at the first plowing. Scamniatus ager, is called of Vibius Urbicus, that land which runneth all in length from West to East, which if it be moze of length then by coth, and lyeth vpon the North, is called Scrigatus. The land it selfe is also called

called grosse and raw, that is not well mellowed, which hath need to be seasoned with the heat of the Summer; and the cold of Winter, and to be plowed in the Spring. It is also called rich, fruitful, fertill: and that which is nought, and yelds not his fruit, is called leane, barren, hungry, or byniff: also salt, bitter, fenwifh, where the water will continue: Wet, that sometime lies drye: Carbunkled, that is burnt with the Sunne, rotten and mossie. It is also called pleasant ground, sweet, blacke, rotten, and mellowed, which are the signes of good ground: but hereof I thinke I haue now spoken sufficiently.

RIGO. That you may continue your speech, I pray you goe to your former matter againe.

CONO. When you haue broken by your ground, if it be Noualis, as I said, and not filled before, you may solue it presently, and harrow it, and if neede bee, rake it. The ground that is yeerely solone, and that hath lye[n] spare, is to be plowed thirfe, according to the nature of the soyle, and the seede that you meane to sowe.

RIGO. Now you haue told me how to order my land for seede, I pray you let me vnderstand the sorts of seede, and in what sort they must be solued.

CONO. That must I doe: The seede that commeth of that, Of Seede, and their diuerfity. which the Latines call Fruges, as Pulse, and Corne, we here doe call Fruges, all sorts of haruest graine: which the Germans call *yuia* and *xexia*, because they are gathered in their beautie, and their ripenesse. Iulian the Lawier, calleth Fruges, all things where with a man is fed. The ancient wryters doe vnderstand it more largely, for all the fruits of the earth. Plinie deuides it into two kindes; into Corne that growes on care, as Gallus the Lawier deuifines it: the other, that beareth cods; as all kinde of Pulse, or Bedware. Of the first kinde, is Wheate, Rie, Barley, Wigge, Dates, Bech wheat, or Buck, or if you will in Greeke *πρωονες*, Rife, and Lenten Wheate, though all kindes grow not in all places, nor haue in euery place all one name. In some places you haue not Lenten Wheate, chiefly where there is plenty of Wig. In other places they vse neyther Dates nor Bucke. Of the kinde of Pulse are these; Beanes, Peason, Lentiles, Chiches, Tares, Lintels, Lupines, and such like. And though there be sundry sorts of seede, and euery Country hath his kinde, and solues such as best Old Seede not to be sowne. agrics

The first Booke, entreating

agrees with their nature : yet generally this is to be regarded, that you sowe none that are old and dzyed, but the newest : for old seed doth oftentimes, as they write, change their nature: as the seed of Colwozts, that being sowne, turneth to Kapes; and Kape seed likewise into Colwozts. The seed of the first yere is best, of two yere old worse, and of thre, worst of all, the rest is barren and naught. The best seed also is that which is wayttest, and lyeth in the bottome, and such as is full, and being broken, hath a good colour: such as is wrinkled, and thin in the ear, is to be thowne away. There is also another necessary note, to haue the seed from strange ground, & from the worse to the better, and not the contrary, nor from cold Countries into hot, nor from the forward to the slow, & to beware that it be not bitten with Birds, Bils, or Ants: and to prosper the better, sprinkle them before they be sown, with the iuyce of Houfacke. If you mingle with your graine the seed of Bearfoot, & sow it about your ground, you shal saue it from the au-

The order
of sowing.

rogance of birds. You must sow your Ridges with an equall hand, *καὶ ὁμαλῶς*, and all alike in euery place, letting your foote (specially your right foote) and your hand goe together: Wheat, Rie, Barley, Ottes, & other, chiefly such as bear seeds, as Melium & Panicum, must be sowne with a full hand, but Kape seed onely with thre fingers.

R I G O. A man must vse his hand I perceiue, as the Harper, doth, to make it perfect.

C O N O. He must indeed. And as we put more water to stronger Wine, then we doe to small, and lay the greater burden vpon the stronger man, and some stomacke requires the stronger food, so some ground may beare much seed, and some alway with lesse: neither can it be certainly appointed, how much seed is generally to be cast vpon an Acre: though I know the old writers appointed a certaine quantitie to euery Acre, which perhaps might serue with them: but we should soley deceiue our selues, if we should obserue the like in euery place: First, because some ground requirerh more seede then other, as the ground is of stiffnesse or lightnesse: for the stiffer ground (as in Holland nere the Rhine) requires much seede, where lighter ground requirerh lesse. The timely sowing, the thinner: and the later, as Columella saith, the thicker. Secondly, their measures and Acres differ, as the thing that at this day is not thzoughly agreed vpon. But now
you

you shall heare what s^{er}ue euery ground requireth.

R I G O. That I long to heare.

C O N O. After long rest, or the first dunging, eyther Barley or Wheate is to be solue: but Wheate, though it require good ground, yet if the ground bee too rich where it is soluen, it will grow too ranke, and lye leadge vpon the ground. And therefoze vpon such ground, it is best to solue your Wheate after a crop of Barley, Pease, or Bucke, and after your Wheate crop, to solue it with Rie: and then againe (if the ground were not poore) with Barley. In very rich ground, immediatly after the gathering of Rape seed, plow it presently for Bucke, whereby you may haue two croppes in one yeere. In the like manner Cabegged rape soluen after Rie, maketh two haruests in one yeere. Pease, Beanes, Tares, and Fitches, and almost all Pulse else, requirerich ground, which afterwards may yeerely serue for Wheate, Milium, and Rape. Plinie would not haue Rapes soluen, but in very well dunged ground: but we finde by experience, that after a Crop of Rie, in meane ground, you shall haue the same yeere great Rapes. Sandie and grauelly ground, must rest euery third yeere, for two or thre yeeres, that being then well dounge, you may solue Rie, or Buck, & after Dates. In good Pasture ground new broken vp, you may solue Dates after the first plowing, after that, Rape seed, then Barley, after that Wheate, or Rie, and at last Dates, or Rie, if the nature of the Countrie be for it. When this is done, you must eyther doung it, or let it lye lay. If the ground be mellow after Barley, in some places they solue Millie, then Kibish, after that Barley, and Wheate, as in Campania: and such ground is sufficiently plowed, when it is soluen in some place where Lenten Wheate is solue, it rests thre moneths, & after is soluen with Beanes in the Spring, in no other wise may you charge indifferent ground. If after two seasons of Corne, you solue Pulse or Bedware, the barren ground must rest thre yeeres. Some will in no case haue you solue wheat, or Barley, in ground that lies fallow. After ye haue thus soluen your s^{er}de in ground thrice plowed & well prepared, then must you straightwaies harrow it, which is done with a lettused instrument full of teeth, drawn vpon the ground, whereby the clods are broken, & the s^{er}d couered; in some places it is done with a board tyed to the plow, which

Harrowing.

The first Booke, entreating

Raking. Which they call in latine *Lirare*. Sometime raking is needfull, which in the Spring, loseth the earth, made clunged with the cold of winter, and letteth in the fresh warmth. It is best to rake Wheate, Barley, and Beanes twice. Moreover, they brake asunder with the Rowler the greater and thicker clods. Rowling is when the Corne is knotted, the noughtie loaves being plucked by, deliuereth the rates of the Corne, and seuereth it. To speake of the season of Sowing, it is agreed vpon of all men, that there ought to be no sowing in Winter: for the Winter corne, when it is sowed befoze winter, appeareth about the ground sometimes within a seauen-night after, which if it be sowed after winter is begun, it scarcely appeareth in forty dayes after. Some very fondly thinke it better to solve in the Spring, then in Autumne. Plinie writeth, that in Treuers the Harvest being in, they haue sowed in the coldest of winter, and raking their ground in the Spring, haue had an excellent good crop after. Amongst our harvest seedes, there are some harder, that are able to abide the winter, which are sowe in hot Countries, as Virgill saith, about the setting of the seauen starres, which Columella vnderstandeth to be about one and thirtie dayes after the Autumne Aquinoctiall, that is, the 9. Kalends of Nouember, and in France and Germanie in September, and the beginning of October, as Rape seed, Wheat, Rie, Winter Barley, that are nourished in the blade all Winter, and grow vpon towards earing in the Spring. Some there be that will you to solve befoze, onely in dry ground and hot Countries.

Late sowing alwaies fayleth. Some againe would haue you to solve in cold Countries after the Autumne Aquinoctiall, in hot Countries later, lest they should flourish befoze winter, and be destroyed of wormes, or blasted. Some on the other side make haste, saying, That soone sowing sometimes deceiues, but late sowing euer. It is good reason to solve timely in wet grounds, that the seed rot not with ouermuch moisture: and later in dry grounds, lest lying long & not sprouting, it come to nought. Also, in timely sowing, to solve thicker, because it is slow in rooting: and in later sowing thinner, lest with the thickness it be choaked. Summer seedes, which are sowed befoze the rising of the seauen starres, & in the Spring, are Beanes, Pease, and such, Pulse, Millet, Panicum, Sefamum. Summer, Barley, Flaxe, Hempe, Dates, Bucke, Sporia, and such other,

are

are sowed in the Spring time. In Asia and Greece they sowe all, as they say, at the setting of the seaven Starres. Now, although there be certaine precepts of the time of sowing, and how much seede is meete for euery quantity of ground, surely, they might as I haue said before, for their owne Countrey and nature of their ground, giue a kinde of guesse, but to determine any thing herein certainly, there is no man that can doe it, but the ground and euery mans owne practise is herein the best Master. One ancient generall rule of husbandry there is, wherein we are warned in cold Countries to sowe late, in temperate Countries sooner, and in one hote Regions soonest of all. Eratosthenes saith, that India is subiect to much raines in Summer, and that then they sow Flax, Selamum, Rice, and Millet: and in Winter, Wheat, Barley, Peas, vvaire, and other fruits that we haue not. Heliodus, the Prince in his time of husbandry, wils vs to sow according to the custome of Greece, his naturall Countrey. Virgil, Cato, Varro, Columella, and Plinie, appoint their rules for Italy, whose mindes if you will haue followed in all other places, you shall but seeke to couer euery pot with one couer. But to come to the matter, sith the seedes of sundry natures require sundry times of sowing, and diuers sorts of ordering, and that herein euery Countrey hath his gisse, I will here (observing such customes as are most generall to them all) severally shew you of euery seede by himselfe, and so declare vnto you the order of their sowing. And first, amongst all the fruits and graine that the earth doth yeeld for our sustenance, the chiefest place is rightly giuen vnto wheat, called in Greeke *τροφιμη* in Italian Grano, in Spanish Trigo, in Dutch Weyls, in French Four-
Wheat.

ment, as a graine most needfull for a man, and therefore most fruitful, because God hath ordained it to nourish man withal. It is wonderfull what yeeld it hath bene of in some Countries. Augustus his Deputie sent him from Bisaiice in Africa of one graine of wheat foure hundred branches. And Plinie witnesseth, that in the same place, one bushell hath yeilded a hundred and fiftie bushels.

R I C O. There are that hold opinion, that this which the common people call Wheat, the Germanes Weyls, and the Hollanders Terve, is not the true Wheat, but a kinde of Rice, and that the true Wheat which the Italians call Grano, groweth onely in Italy and in Spaine.

The first Booke, entreating

C O N O. That which growes in Italy and Sicill at this day, differeth not from ours in fashion, colour, nor flowre, though the graine there be somewhat great, and the flowre more clammy, which maketh it that it cannot be long kept, specially about Rome. And whereas our Wheate is either bearded or pollard, theirs is altogether pold: we call it pold or pollard that hath no Aanes upon the eares. And that we call the Aane, which groweth out of the eare, like a long picke or a Dart, whereby the eare is defended from the danger of Birds. With Virgill the Aane is vsed for the cozne, as the parke for the wheat. Gluma is the huske of the cozne, whose top is the Aane. Frit is the small graine, lesser then the cozne that growes in the top of the ripe eare. To returne to the wheat, I graunt there are some that doubt of this wheat of ours, such hath bene the iniury of the time (as all things almost forgotten) we scarcely know how to name the seede that we daily see of. For my part, I will follow common vse, as a Distris in speech. The old wryters haue wrytten of sundry sorts of wheate, wheresof they haue thought that most needfull to be sowne, which they called Robus, as the sayrest and waightiest. The second called Siligo, they vsed in their finest cheate. The third, they called Trimestre, because it would be ripe in thre moneths after the sowing. Though Columella allow no such kinde, yet was it most auncient with the Greekes, and called Trimenon, growing onely in the cold countreys. In Thracia, they haue a kinde that is ripe in two moneths, and is couered with a number of husks, against the extreame cold of the countrey. In our Countreys also we haue Wheat and Rye, that we sow with our Summer graine, as we likewise doe Rye seede, but to no great commoditie: for the winter seedes too farre excēde them; and being nourished in the earth all winter, they proue, as Theophrastus saith, of more substance and profit. Amongst all these sorts, Plinie recounteth the wheat of Italie to be the best, both for beautie and weight. We vse with vs onely two sorts, differing in this, that the one hath smooth eares without any beards, the other with long beards or Aanes, very rough and sharpe, not much unlike to Winter Barley: in all other properties they are both alike. It is sowne in September, the season being faire, the ground thrice plowed and well raked or harrowed, although you may sow it very well after

The time
for Wheat
sowing,

once.

once plowing vpon ground where Pease, Tares, or Bucke hath
 béene new'y had of, in a good soyle. Plinie & Columella would haue
 you sow of Wheat and Rie, fíue bushels vpon an acre : but as I
 said befoze, this measure is to be measured with reason. We at
 this day sow not so much wheat vpon an acre, as rie, nor so much
 rie, as barley. It is best, if the winter be like to be cold, to sow
 the sooner : if warme, the later. Wheat delighteth in a leuell, rich,
 warme, and a dry ground : a shadowed, wéedy, and a hilly ground,
 it loueth not, though Plinie say the hill yieldeth harder wheat, but
 no great store. After it is sowne, it putteth out a great company
 of small rotes, and appeareth at the first wy or blade : it hath sun-
 dry stalks, but such as cannot branch all the winter, as other win-
 ter corne is, it is nourished in blade : when the Spring draweth
 on, it beginneth to spindle: vpon the third or fourth ioynt thereof,
 commeth out the eare, which first appeareth inclosed in the blade,
 it flowzeth the fourth or fifth day after : if it grow to ranke at the
 first, it is eaten downe with cattell, or in some place mowed : it is
 after wéded : it flowzes about the 10. of June, sooner or later, as
 the yéere falles out, euen at one time almost with the Vine : two
 noble flowzes, with comfoztable sauour flourishing at once. Varro
 affirmeth, that the wheat lyeth 15. dayes in the blade, flourisheth
 15. and ripeth 15. After it hath flowzed it waxeth greater, and
 as Theophrastus saith, is within fortie daies after full ripe, where-
 with the latest they reape in the eight moneth. Other say in fíre
 and thirtie daies, and reaped in the ninth moneth. It neuer eares,
 till all his ioynts or knots be growne. There are foure ioynts in
 wheat, as Plinie saith, and eight in barley : but in our country and
 our daies, both Wheat, Rie, Barley, & Otes, haue but foure, and
 not that alwaies. Befoze the full number of the ioynts, there is
 no appearing of the eare : which when it commeth, beginneth to
 flowze within foure or fíue dayes, and so many, or little moze, it
 fadeth. When the flowze is gone, the graine begins to swell, and
 in foure or fíue dayes after, to ripe. The blade of the wheate is
 something like a Sedge, but narrower then the barley : the spin-
 dle, stalk, or straw thereof, is smother and gentler, and not so
 brittle as Barley. It is closed in many roates. The stalks that
 beareth the eare is higher then that of barley : the eare groweth
 moze vpright, and farther from the blade, the chaffe is softer,

The first Booke, entreating

winter, and more full of iuyce, the care of wheate is out of order
 and vniuen, as well of the Dollard, as of the bearded, whereas
 Barley hath his care of iust number, and in perfect order. In Ba-
 ctia, it is said a graine of wheat is equall in quantitie to an care
 of our wheat. In Babylon, the blades both of wheat and barley,
 as Herodorus reporteth, are foure inches broad. Wheat, as Colu-
 mella writeth after the third sowing changeth to Ric, which hath
 bene knowne in Germanie, as I said befoze in many places. Of
 wheat is made Amyl, the making wher of, Cato and Dioscorides
 teacheth. After wheat we sow with vs rie. There are that thinke
 it to be that which the Grækes call *ἀρυξ* though Homer take
ἀρυξ, for a kinde of fode for horses: some others take it for a
 kinde of wheat. Herodorus saith, bread was made of it. Of Lauren-
 rius it is called Far. Of Gasa, Siligo. Diuers learned men call it Se-
 cale, and take it for Plinies sarrago. The French men call it Segle.
 The Dutchmen Rock. The Italians, almost as the Latines, Sa-
 gala: the graine is something blacke, and maketh blackish bread.
 But to passe ouer all controuersies, I follow the Country speech,
 & take Siligo for our common Ric, which is sowed immediately af-
 ter wheat, about the end of September, or in the beginning of Oc-
 tober, in good ground: in sandy and grauelly ground, it is sowed in
 February, & called Summer wheat: it requirith the best ground,
 warme, & fast, and refuseth not light ground & grauelly, so it be hel-
 ped with dung: it loueth wet ground as ill as wheate, then both
 require to be sowed in a deepe mould and a plaine soile: but Ric
 is sowed a little after wheat, in the sowing wher of, you must oc-
 cupie a third part more then of Wheat: it prospereth lightly in
 any ground, and many times with the yeld of a hundred for one. It
 must be sowed after the third plowing, as Wheat, and harrowed
 much after the same sort, the stalk or streale thereof, is smaller then
 the Wheate stalk, taller, and stronger, his care hangeth downe-
 wards, and therefore more subiect to blasting, because it receiueth
 and keepeth the water that falls while it doth wet, and suffereth the
 violence of mists and frosts: the straw thereof is gentle and flexi-
 ble, seruing for Times and coverings of houses. Now folleweyth
 Barley, accounted in the olde generations among the worthiest
 sort of graine, and not of small estimation at this day. The Ita-
 lians call it Beade or Beauc, or Orza: the Spaniards Ceuada:

Barley.

the

the Dutch men Gerst: the French men Orge: the Grecians κριθή: and though it be vsed in Græce and Italie, and such warme and fruitfull Countries for Cattels food, as Homer also witnesseth, yet in the Northern Countries it supplies the place both of bread and wine. There are of it two sorts, Hexastichon and Polystichum, whose eares are thre, foure, and sometimes sixe square, and diuers eares springing from one grayne, euery eare contayning aboute fourescore graynes, so wonderfull are the gifts and blessings of God. The other sort is called Dillichon, hauing in the eare but two rancks or orders onely. Againe, there is one kinde of it to be sowed in winter, another for summer. The winter Barley is of better yeld, but it is some hurt, specially with much wet & frosts following. There is nothing more hurtfull to winter Cozne, specially Barley, Rape seede, and Rie, then the wet of winter, mipped with often frosts, and after a warme thaw, to be presently frozen againe: both the sorts of Barley require ground that is very rich. Winter Barley, after two or thre plowings, is to be sowed in September: Summer Barley in March, or Aprill, after twise plowing; and many times, necessitie forcing, after once plowing: in the sowing, you must occupy more seede by halfe, then in sowing of wheate: it requireth a mellow and a fat ground, and therefore is best sowed, where the ground is most manured. The winter seede bloweth in May, and is ripe in June at the furthest. This kinde was not wont to be sowed in these parts, but great numbers, now moued by my example, do vse and receiue great gaines by it. The summer Barley in many Countries is ripe and ready in thre moneths after the sowing. In Aragon, as Plinie writeth, it maketh double haruests euery yere. The seventh day after it is sowne, it comineth vp, and one end of the seede runneth downe in roote: the other, the sooner springeth, & comineth vp in blade: the greater end of the grayne maketh the roote, and the slenderer the blowe. In other grayne the roote and the blade spring both from one part, the blades of both kindes are rough. It must be gathered with more speed then other graines, for the straw of it is very brittle. Of Barley is made, as Dioscorides writeth, both Béere & Ale.

R I C O. I like your Béere you haue excellently well, I pray you tell me in what sort you make it?

C O N O. I will not hide my cunning in this matter. My Barley

The first Booke, entreating

is first steeped in a Cesterne of water a day or two, if it be winter soe it is harder hulled, and requireth the longer watring. The Summer graine is thinner, and requireth a lesser time. When it is watred, I dry it vpon a stove or a keele, till it swell and breake, putting out as it were little berds or thyeds, if it be layd thin, it will in summer, specially in March, dry & breake of it selfe without any fire. You must take good heed, that in spyrting it open not too much, and lose his stowze. This being done, I grinde it, and put the Meale into a Hask-Flat, wherunto I put my licour sodden, and after let it seethe thre or foure times, adding vnto it, both for wholesomnes and taste, the stowze of the Hop: after this, I put on Peell, and set it a working, and then cleanse it. The more it is cleansed, the wholesomer & clearer it is: that which commeth of the spurging, is kept both for Brewing and Baking: the drinke will be the better, if you put to it a fourth part, or a sixt part of wheat: the more Cozne you lay on, the pleasanter and better coloured will your Beere be. Your greatest care must be to see it well sodden, well cleansed, and well hopped, otherwise Halk of it selfe will some corrupt. Obseruing this order, your drinke shall be both wholesome & pleasant: that endureth best and longest, that is brewed in March. There is made of Barley Alica, a reasonable good meat, and Pisan. How they must be made, you may read in

Zea. Plinie: Pert to wheat and barley, followeth Zea, which the common people, both in Italy, Spaine, and Flanders, call Spelca, the French call it Espelca, with Homer is greatly commended, *Ζείαρος ἀρεσος*, the fields that beareth the Zeam, being as Galen saith, the meane betwixt wheat and barley, for he hath the qualities of each of them, & is of two sorts, the one in stalke, ioynt, and rare, like to wheat, and carrieth in euery huske two sades, and therefore is called *Αίκοκκος*, the other hauing both stalke and eare shorter, and but one graine in euery huske, growing into ranches, & in the top resembling Barly with his sharpe Eanes. In Italie, specially about Mirandula and Concordia, it is vsed in prouender for Horses, it is not in these countries in vse. I would soe it here, with the ground will serue for it, & that both bread & drinke might be made of it very well, but that it is something troublesome to grind, because of the double huske. It desireth a moist ground, rich and good, it is sowed after the same maner that wheat is sowed,

in September or October: it flowzeth in June, and is ripe in July, very meete for colde Countries, because it can abide frosts and stormes.

R I G O. There is (as I remember) a kinde of wheat called Far, Far, A do-
 auncient people called it Adoreum, that groweth in many Coun-^{rum.}
 tries.

C O N O. You say true, for with the olde sort, Far was a gene-
 rall name to all cozne, as wheat Far, Barley Far, and Rie Far, and
 when mills were not yet deuised, they did beat their cozne in moz-
 ters, wherof came, that the meale was called Farina: yet after, was
 the name of Far onely giuen to Adoreum, though Columella called
 it alwaies Far Adoreum, making seure sundry sorts of it. The
 Frenchmen call it Brance, the Italians Sandala, the Spaniards
 Escandia, the most people of our Country call it Farro, the Dutch
 Keskorne, whose graine is very like wheate, but that it is shorter
 and thicker, and where wheat hath a chist, there hath it a rising. It
 is heavier then barley, & lighter then wheat, it yeldeth more meale
 then any other Cozne. The people of Rome as Plinie saith, liued
 with this Cozne at the first thrie hundred yeeres, it groweth in
 Egypt without Aane, with a greater eare and a waightier: it hath
 in the stalk seauen joints, and cannot be cleansed except it be par-
 ched. France hath two sorts thereof, one of a reddish colour, which
 the people call red wheate, the other whiter, which they call
 white wheate: the eare is thrie square, not unlike to spelt. In Ita-
 lie they make pottage of it for their labourers. Far or Adoreum,
 Virgil would haue sowne befoze the setting of the seauen starres,
 after the Aequinoctiall of Autumne: but in wet and cold barren
 grounds, it is best to sow it about the Balends of October, that it
 may take deepe roote befoze the freezing and cold in winter. It is
 sowed in low ground, watrish, and chalky: after it is sowed it must
 be harrowed, raked, and weeded: the raking loseth in the spring,
 the heavy shades of winter. In raking or harrowing, you must
 take heed, as I said befoze, that you hurt not the rootes: weeding
 when it is knotted, seuereth the Cozne from all annoyances. The
 French men sow it in hollow furrowes, because it is very sub-
 sect to blasting, thinking thereby to preserve it both from blast and
 micedew. To sow it in hie ground is discomended, though it pros-
 per there well inough, because cattell cannot away with it, for the

The first Booke, entreating

Rape.

sharpnesse and ruffnes of the eares, and because it requireth great labour in getting off the hulks, which if it be not cleared of, is neither good for man nor beast: the uncleane chaffe doth hurt with the Cough, the Cattels lungs. Amongst the winter sēdes, Rape sēde doth challenge his place, which I take to be the sēde of the Rape, which Plinie maketh for his third kinde, and wilde, whose roote, like the Raddish, runneth in length, the leaues being ruffe, like the other kindes, and the stalk bushy and full of branches: the roote of it is good for nothing, but is onely solued for the sēde, whercof they make Oyle, seruing for poore mens Kitchins, salts, and lights, specially in Germanie, where they want the Oyle of Olives, wherby ariseth great gaines to the husbandman. In the hot Countries where they haue other Oyle inough, this sēd is of no vse, but in sēding of Birds: it is solued in the end of August, or the beginning of September: how be it, sometime it is solued in March among the Summer sēdes, but to nothing so great a profit: it is cast into very rich ground, or well manured, thrice plowed and well tilled, it must be solued very thin: for being a very small sēd, it must not be solued with the full hand, as wheat is, but onely with three fingers: it flowreth in March, or thereabouts, as the yeere is forward, and continueth his flowring a long time: the flowre is yellow, and very swēt, wherein Bees doe much delight: as soone as it hath left flowring, it is presently ripe: it groweth two cubits in height, bearing a plentiful sēde in little small eods, it rendereth for one bushell, a hundred bushels of sēde. Hitherto haue I spoken of Winter sēdes, now must I tell you of such as are solued towards Summer.

R I C O. Will you speake nothing of the Rape roote, which is greatly occupied of the husbandman, and not to be despised as a thing that groweth in great quantitie, and is mōtely good meate, both for man and beast?

C O N O. The Rape is named of the Grekes ραπισα, in Italian Rapo, in Spanish Nabo, in French Rauē. The ordering of which, though I take it to belong to the Garden, wherē you are able to say moze then I, yet because you require it, & that sometime the husbandmen do plant them in their fields, I wil tell you as much as I know therein. There are 2. kinds of them, the first doth roote all in length like the Raddish, which in many places of Germanie

Germanie is bled for a daintie meat: the other eyther groweth in great roundnesse, or else very flat: they are nourished with mists, frosts, and cold, thre moneths together, and grow to an exceeding greatnesse. Plinie writeth, that hee hath seene Rootes of them that haue weighed forty pound. Some say, they haue seene of them that haue weighed an hundred pound. It is wonderfull, that of so little a seed should come so great a root. The Grecians make two kindes of them, the male & the female, both coming of one seed, the male when it is sowed thicke, and the female when it is sowed thin. There are two seasons for the sowing of it, eyther in March, which will be ripe about the tenth of June, or in July, or August, after the first plowing, commonly vpon the ground where Rie & winter Barley haue bene newly had of. It is thought they are the sweeter by lying in the ground all winter, when as the increase is not in the leafe, but in the roote. They are also sowed (as Plinie writeth) in hot and moist Countries in the Spring, and will the better increase if they be sowed with chaffe, who would also haue the sower naked, and in casting the seede, to wish good lucke to himselfe, and to his neighbours. They are preferred from the Caterpillar, which commonly consumeth the young leaues, by mingling the seed with Sote, or keeping them all a night in the iuyce of Houllcke: Columella affirmeth, that he himselfe hath seene it proued.

R I C O. How procede (I pray you) with your Sommer seeds.

C O N O. The Sommer seedes are almost all such as are ripe within thre moneths, or foure at the vttermoost after they are sowed, and some of them sooner, if the ground and the weather be good. Among the Sommer seedes we will first talke of graine, and after of pulse. Of the graine, Dates are the first that are sowed, though Virgill count them barren, & Plinie counteth them rather weeds then cozne, affirming, that Barley when it prospereth not, will many times turne to Dates: yet the Frenchmen & the Germanes count (it at this day) the best prouender for Horses, and food for Cattell. Plinie also witnesseth, that the Germanes bled to make pottage of Dates. And Dioscorides maketh mention of Daten pottage, *πόλτος ἐκ βεάμω γίνηται*, pottage of gruell is made of Dates, it is called of the Grækes *βεάμος*, in Italian Vena, in Spanissh Avena, in French Auoine, in Dutch Hauer,

The first Booke, entreating

Hauer, which though it grow not commonly in Italy, yet upon Monte-Ficeto, and in the kingdome of Naples about Siponto it is found. Wee haue amongst vs two kindes of them, one full and weightie, seruing in deere yeeres, to make bread and drinke of, specially if it be medled with a little Barley, and this kinde prospereth in rich and new broken-by ground exceedingly. The other kinde is lighter, which the common people call Tuen and Bzunhauer, it is very light, and yeldeth but little flowze nor foode: it groweth vpon sandy and barren grounds, and serueth well for Cattell and for Horse: both the kindes haue bushy tops, from whence hangeth the seede, in likewise resembling the grassie hopper: the flowze of it is white, & from one graine, there springeth diuers stalkes: with Dioscoridos, Bromos, is a kinde of Dats that resembleth wheat in the stalke and the blade, & groweth like wilde wheat. Theophrastus calleth it *αἰγύλοπα*. The Dat is not dangerous in the choise of his ground, but groweth like a good-fel low in euery place, where no seede else will grow. Of the like disposition almost is Buck or Wæch wheat, vnknowne to our old fathers. It is called *Φαγόπυρον* Wæch wheat, or *μελάμυρον*, Black wheat, though *μελάμυρον* signifieth another graine. I had rather call it Wæch wheat, because the graine thereof is threecoznerd, not unlike the Wæch maff both in colour & forme, differing only in the smalnesse. The stalke is very great, & straked like to the greater fearn: it hath many branches, with a bushy top, a great sort of white flowzes in a knop, like the flowzes of Elder: it flowzeth long together, & after appeareth the graine, first white and greenish, in shape threecoznerd: after they be ripe the colour chaungeth to blacke or brownish, like a Chestnut. This graine hath not long since bene brought from Russia & the Porthen parts in Germanie: now it is become common, and vled for fatting of Hogs, and serueth the common people in deare seasons, to make bread and drinke withal. It may be sowd in any ground, and is sowen in Apriill, May, and in Iune, after the reaping of Rape seed. You must sowe lesse of it vpon an Acre by a fourth part then of Wheat or Rie: it is much vled to be sowd vpon the ground where Rapes grow, whereby the ground doth yeld a double crop in one yeere. When it is sowen, it commeth vp, if it be moist weather, within foure or fvee dayes after, hauing two leaues at the first appearing,

not

Buck.

not much unlike to Purslaine. Amongst the Sommer seedes is also received Sommer Barley, which from the Sunnes entring into the Equinoctiall, till the end of March & Aprill, is sowed, and is reaped againe for the most part in thre moneths, or at the uttermost foure. It requireth (as winter Barley doth) a rich and a mellow ground, & to be sowed after twice plowing, though sometime for necessitie it is sowed after the first plowing. And though it yeeld not so good nor so perfect a graine as the winter Corne doth, whose graine as Theophrastus writeth, is farre more perfect and of stronger substance, bringing greater straw and weightier eares, yet because it is harder husked, and the Summer seed more fine and gentle, is therefore of most men desired, and counted to yeeld more slowze then the winter graine: some againe preferre the other Millet, called in Latine, Millium, in Græke *μυλλιον*, in Italian Milio, or Miglio, hauing as it were, a thousand graines in a eare, as Festus seemeth to auow, in Spanishe Mijo, in French Millet, and in Dutch Hyers, where they make pottage of it and bread. The Russians and Muscouians are chiefly nourished with this kinde of pottage, which they make with the slowze mingled with milke, and the blood that they let from their horses. The men of Ind, as Plinie sayth, know no other graine but Barley and Millet, which grew in his time plentifullest in Campania, it is the best leauen that may be made, neither is there any graine comparable to it for waight, that more increaseth in baking: for of one bushell hath bin draluen thre score pound of bread, & a bushell of sodden meat, made of thre quartes wet and vsod. It is sowed at this day in euery place; though very little in the low Countreies: it groweth with a stalke full of soynts, a cubit high, a leafe like a reede, a round and a small seede hanging downe in long rimmes with many tops: it groweth sometime seuen foote high, it delighteth in a watrish mozy ground, and in grauell, so it be now and then ouerflowne, it hateth drye and chalkie grounds. Some giue counsell to sowe it first in a cold and wet ground, and then in a hot ground: before the Spring you must not sowe it, for it delighteth much in warmth. A little seede of it, is sufficient for a great deale of ground: if it be sowed thicke; it comes to nought: a great handfull will serue a whole Acre, wherefore in raking; you must rake out what is more then

Sommer
Barley.

Millet.

then needfull : an acre beareth fourtie bushels, if it be well sowed, every seede yeldeth about a pottell. It is forbidden to be sowne among Vines or fruit Trees, and must continually be weeded and raked. When the eare is full growne, it must be gathered with the hand, and dzyed in the Sunne, lest the hot weather shatter the seedes. This graine may very long be preserved, for being well layd vp where the winde cannot come, it will well last an hundred yere. There is another like graine that they call Indian Millet, with a great graine, and a blacke and big ready stalk, which was first brought into Italie in the raigne of Nero, which (as Plinie saith) was called Loba, whereas Loba are rather the Cods of all Pulse, and Phoba, the manes and toppes of Millet, as it appeareth by Theophrastus. Panicum is called of the Greeks ἐλυμος, of the Dutch Psenlich, or Heidengreis, of the Italians Pannacho, the Spaniards Panizo, the Frenchmen Paniz, so called of the little Pannicles, wherein the seed lieth. It cometh vp like Millet, with many leaues, and stippes, glittering with a reddish bushie top, full of seedes, like Mustard seede, some yellow, purple, blacke, and white : it must be ordered in all things almost as Millet : being sowed in Sommer, it is ripe in forty dayes after : in other places sowed in May in wet ground, it is to be gathered in September. The harvest, and the vse of it, is almost all one with Millet, neither can it, as Millet, be sined without parching : when it beginnes to spindle, it must be well weeded, lest the weedes ouergrow it : being well drest with Chéfill and Milke, it maketh indifferent good meat : in bread it is not so much used as Millet, for the bread is very drie, and crumbleth like Sand or Ashes, being altogether without moisture or cleaving : but the common people remedying that with Earde or Oyle, do make a shift with it as well as they can. They that dwell about Pontus, are sayd to esteeme it above all other fode, as the people of Nauare doe at this day. In many countreyes it is used onely to fede Pigeons withall.

Pannicle.

Rife.

Of the number of outlandish graine, is Rife, in shape as Theophrastus sayth, like Darnell, hauing a bushie toppe like Millet or Pannicle, but no eare : his grayne is like the kinde of Barley, called Zea, the leaues are thicke like the leaues of Wekes, but broader, the stalk a cubit high, the floure purple. This graine is
but

but geason in Fraunce and Germanie, but in Italie and Lumbardie common, where it is called Elriso, and Menestro Delriso, the French men leauing the first letter, doe call it Rison, the Grækes $\epsilon\rho\rho\alpha$, the Spaniards call it Arrofs. Plinie suppoſeth it to be engendred of the water Sedge. There is made of it Furmentie, as Horace calles it, Kise Furmentie. It is sowen in March, as Millet and Pannicle is. The Indians (they say) doe bruse it befoze they sowe it, to make it the lighter of digestion. And as Strabo reporteth, they make drinke of it.

R I G O. What say you to Sesamum, that was greatly in vse in the olde time?

C O N O. Sesamum is named with the Grækes $\sigma\iota\sigma\alpha\mu\omicron\upsilon$, the Sesamum. Italians Sesamo, the Spaniards Aionioli, the Frenchmen Iugiolin. In times past, it hath bene moze vsed and greatly commended, both of Columella and Plinie. At this day it is knowen to a very few, as a great sort of seedes else are, in so much as the very corne that we daily seed of, we scarcely know what it is. Some reckon it in the number of Graine, and some of Pulse: the stalke thereof is not like Millet or Pannicle, full of ioynts, but playne and smooth, like a rinde, the leaues thereof ruddy, the seed white, not so bigge as Linseed, and is contained in little knops like Poppie: it is sowen befoze the rising of the seauen starres, after the manner of Italy. Columella sayth, that he hath scene it in Cilicia and Syria sowen in June & July, and reaped in Autumne. It requires a mellow blacke mould, though it will grow vpon good sandy ground, & forced ground, raine is hurtfull vnto it after it is sowen, where as it doth good to all other Graine: no great Cattell nor Vermine will meddle with it, it hurteth ground very much, because of the great quantitie and thickenesse of the stalke, and the number of the rootes. Plinie writeth, that it was brought out of India, and vsed both for meate and oyle. But to returne to such graine as we are acquainted with. Amongst the sommer seedes is Miscelin to be reckoned. The husbandmen doe sometime make a medley of sundry sorts of seedes, and sowe them partly for Cattell, and partly for hope that though some of them faile, yet some will growe. But here must you beware, lest you mingle not winter Corne and sommer Corne together, for that were a great ouersight, and one of them must needs perish.
Some

The first Booke, entreating

Some barley may well be mingled with Dates or Buck, as well for brewing, as for feeding of Cattell: and Tares or other like Pulse may be mingled with Dates, as very good for beasts. They are to be sowed in time and place as I have tolde before, in my severall entreating of them.

R I C O. You have well satisfied mee for Graine and Cozne, you may now (if it please you) doe as much in Pulse.

Of Pulse.

C O N O. Pulse or Pedware, is called of the Greekes *ῥαπίζα*, the other parts of the fruites of the ground: of these there are sundry sortes, as you have scene of Cozne: some put Millet, Pannicle, and Selanium, to this kinde, because Columella sometimes puts them in the number of Graine, and sometime of Pulse: but I following Plinie herein, doe put them amongst the kindes of Graine, accounting those to be Pulse, whose seedes are contained in coddes, as Beanes, Pease, Lentiles, Tares, Chyches, Fitches, and such like, which all are to be sowed in the spring. Of all kinde of Pulse, the greatest honour is due to the Beane, as Plinie witnesseth, as to a Pulse that is most commodious for man and beast. In Greeke it is called *κίβανος*, in Italian and Latine Faba, in Spanish Hava, in French Feue, in Dutch Bonen. This amongst all other Pulse groweth in height without any stay, it hath a thicke lease, a crested flower of divers colours, spotted white and blacke, which Varro calles the lamentable letters: it hath a long codde, his fruit within broad, like the nape of a man, of divers colours, it appeareth at the first with many leaves like a Pease, and not with one alone, like Wheat. It is sowed first of all other Pulse in the spring time, as Virgill will have it, and timely, because of Fabalia, which is the offall of the Beanes, for both the cods and the stalk, is a foode that cattell much delights in. Columella reporteth how he heard a skillfull husbandman say, that he had rather have the offall of Beanes timely sowed, then the Cresp of that which is ripe in thre moneths, you must sowe them in the increase of the Plow, and after once plowing. It is said, that if they bee enclosed in Goates dung and sowed, they will yield great increase, and the parts that are eaten or gnawed, in the increase of the Plow will fill up againe. If they be sowed nere to the rootes of Trees, they will kill them. Some holde opinion, that if they be sowed in Capons blood, they will be safe from
all

Beanes.

all hurtfull weeds, & that layed in water a day or two before they be sown, they will grow the sooner. The Beane delighteth in rich & well dunged ground, as all other Pulse doth: wet and low ground it doth not refuse, though all the rest desire drie ground, it waicteth not wæding, being able to ouergrow them. Of all other Pulse it onely springeth with an vpright stalke full of knots, and hollow. And whereas al other Pulse are long in slowze, this slowzeth longest, slowzing fortie dayes together, one stalke beginning when others end, & not all at one time as wheat, they cod in sundry dayes, the lowest part of the stalke slowzing first, & so vprward still in order. So fruitful are they in some places, as you shall find one stalke to beare a hundred beanes. The Beanes sticke close to their Cods: the blacke in their tops, the Latines call Hilum, the cods Valuoli, the wormes that breed in them, Mida. Lomentum is the meale which the people in olde time did vse for the smothering of their skins. Fresa Faba was the beane that was but smally broken, and hulled in the Mill. Refrina was that which they vsed to offer in sacrifice for good lucke with their Corne. It is good to steep your Beanes in the water of Saltpæter, a day before you sow them, you shall keep them from Wyluels, as (Palladius saith) if you gather them in the ware of the Bone, & cherish them, & lay them vp before the encrease. Beanes, and all other Pulse doe mend the ground that they are sown in. The next to beanes in worthines and sowing, is Pease, called in Greeke $\pi\iota\tau\omicron\varsigma$, in Italian Pise, and Piselle, in Spanish Aruera, in French Pese, in Dutch Errettem, a Pulse that groweth with hollow stalkes and full of branches, lying vpon the ground, many leaues and long, the cods round, containing in them round seedes and white: though Plinie write, that they be cornerd as Chych, of which sort we haue some at this day blewish, with slowzes in shape like the Butterstie, purple coloured toward the midst. There are two sorts of pease, the one sort creepeth to climbe aloft, & runneth vp vpon stiches, which with little winders he bindeth himselfe, & is for the most part only sown in gardens: the other sort groweth low, & creepeth vpon the ground: both kindes are very good to be eaten, specially when they be yong and tender, they must be sown in warme ground, for they can in no wise away with cold, they are sowed eather vpon fallowes, or rather in rich and vncely bearing ground once plowed, and as all

The first Booke, entrea ting

all other pulse, in a gentle and a mellow mould, the season being warme and moyst. Columella sayth, that ground is made very rich with them, if they be presently plowed, and the coulter torne in, and couer that which the Horse hath newly left. They are sowed among summer Corne, commonly with the first. First Beanes, Pease, and Lentiles, then Tares and Dates, as is said before. Pease and Tares must be sowed in March and Aprill, and in the wane of the Moone, lest they grow too ranke, and stowe out of order, whereas the best sowing for all other pulse & graine, is in the increase of the Moone. There are that count Pease to be the Pulse that the Grækes call *πεσος*, the Latines *Eruum*; the Italians *Eruo*, the Spaniards *Yeruo*, the Dutchmen *Eruen*, of which there are two kinds, the one white, the other red. The latter is wilde, and groweth in hedges and corne fields: it is a small plant, hauing his leaues narrow and slender, his flowre eether white, or medled with purple, growing nere together like Pease, there is no great businesse about it: it delighteth in a leane barren ground, not moyst, for it will be spilt with too much ranckenesse: it must be sowed before March, with which moneth it agreeth not, because it is then hurtfull vnto Cattell. *Eruilia* is a pulse like small beanes, some white, some blacke, and others speckled, it hath a stalke like pease, and climbeth like a Hoppe, the Coddies are smooth like Peascods. The leaues longer then the leaues of Beanes: the flowre is a pleasant taste to Hens. In France and Lumbardie it is called *Dora*, or *Dorella*. *Phaseolus* in Latine, in Græke *σμηλας κικπιας*, garden Smalar, some call it *Fasium*, & *Dolichium*, among the Italians some call it *Fagioli*, some *Smilace*, de *glihorti*, others *Fagiuolo* Turcheses, others *Lafanio*, the Spaniards call it *Frisoles*, the Frenchmen *Fasioles*, and *Fales Pinccos*, the Dutchmen *Facelen*, or *wilde bonen*. It is a kinde of Pulse, wheresof there are white, redde, and yellow, and some speckled with blacke spots, the leaues are like *Truic* leaues; but some thing tenderer, the stalke is slender, winding with claspes about such plants as are next him, running vp so high, as you may make Arbours vnder him: the coddies are longer then *Fennigracke*, the Graines within diuers coloured, and fashioned like *Kidneyes*: it prospereth in a fat and a plenty bearing ground, in Gardens, or where you will: and because it climeth aloft, there

there must be set by th. in poles or staves, from the running to the tops, it climbeth upon trees, securing well for the shadowing of Arbours and Sommer houses. It is sown of diuers from the Ides of October to the Kalendes of Nouember in some places, and with vs in March. it flowereth in Sommer, the meat of them is but indifferent, the sayce not very good, the cods and the grauns are eaten together, or like Sperage. The Jewes sell them at Rome, preserued, to be eaten rawe. Lens and Lenticula, in Greeke *Φακίς* and *Φακίη*, in Italian *Lenti* *ix bon manastre*, in Spanish *Lenteza*, in French *Lentilla*, in Dutch *Linsen*, is a pulse very thick and bushie, with leaues like the Tare, with thre or foure very small graines in euery cod, of all Pulses the least, they are soft and flat. The white ones for their pleasantnesse are the best, and such as are aptest to seeth & consume most water in their boyling.

Lyntles.

It is sowne with vs in Germanie, in March and in Aprill, the more encreasing, in mellow ground, being rich, and dzy: yet Plinie would rather haue the ground leane then rich, and the season drie: it flowereth in July, at which time by ouermuch rancknes and moysture, it sone corrupteth. Therefore to cause it quickly to spring and well to prosper, it must be mingled with dzy dung before it be sown, and when it hath lye so mingled foure or fife dayes, it must be cast into the ground. It groweth high (as they say) when it is wet in warme water and saltpeter, before it be sown, and will neuer corrupt being sprinkled with Wengwing and Vineger. Varro willeth, that you sow it from the fife and twentis day of the Moone to the thirtieth, so shall it be safe from Snayles. And Columella affirmeth, that if it be mingled with ashes, it will be safe from all annoyance. Cicer in Latine, in Greeke *ἐγέσιυ* *δο5*, in Italian *Ceci*, Cicere Rosso, and Cicere bianche, in Spanish *Garuangos*, in French *Chiche*, and in Dutch *Cicererbs*, is a bushie kinde of Pulse, hauing a round Cod, & therein a couple of thre cornerd seedes, whereof there are that make thre Kindes, white, red, and black, differing onely in the colour of their flower: the best kinde hath a sticke stalk, crooked, little leaues indented, a white, a purple, or a blacke flower. And whereas other pulse haue their Cods long and broad, according to their seede, this beareth them round: it delighteth in a black and a rich mould, it is a great spoyler of land, and therefore not good for new broken by

Ciche.

The first Booke, entreating

ground: it may be sowed at any time in March, in raine weather, and in very rich ground: the seed must be steeped in water a day before it be sowed, to the end it may spring the sooner: it flowreth in June and July, and then falleth to seede: it flowreth a very long while, and is gathered the fourth day, being ripe in a very short time: when it is in flowre, of all other pulse it receiveth harme by raine: when it is ripe it must be gathered out of hand, for it scattereth very sone, and lieth hid when it is fallen. In the which there neuer breedeth any worme, contrary to all Pulse else: and because it driveth alway Caterpillers, it is counted good to be

Cicercula.

set in gardens. Cicercula in Latine, in Græke *Λοιζυρος*, in Italian Cicerle, in Spanish Cizerche, it differeth from the Chick, only in that it is somewhat blacker, which Plinie accounteth to have uneven corners, as pease hath: and in many places about vs, they use them in stead of Pease, esteeming them farre above peason: for they both yeeld more flowre then pease, & is lighter of digestion, and not so subiect to wormes. Columella counts it rather in the

Tares and fodder for Cattell.

number of fodder for Cattell, then of pulse for man: in which number are these that follow. And first, Vicia in Latine, in Græke *βίαιον*, in Dutch Wycken, in French Vellac, so called, as Varro thinks, of winding, because it hath tendrels or claspes, as the Vine hath, whereby it climbeth vpon such stalkes as grow next it: it groweth halfe a yard high, leaved like Lintare, sauing that they be something narrower, the flowre like the flowre of Pease, having little blacke seedes in cods, not altogether round, but broad like the Lintell: it requireth a drye ground, though it will also grow well enough in shadowy places, or in any ground, with small labour, being not troublesome to the husbandman: it requireth but once plowing, and lotheth for neither harrowing nor dunging, but enricheth the land of it selfe, specially if the ground be plowed when the crop is of, so that the stalkes may be turned in: for otherwise the rootes and stalkes remaining, do sucke out the goodnesse of the ground: yet Cato would haue it sowed in grassie ground, not watrish, & in new broken-by ground, after the deaw be gone, and the moisture dried by with the Sunne & the winde. You must beware that you sowe no more, then you may well cover the same day: for the least deawe in the world doth spoyle it. Neither must you sow them before the Moone be twentie-four days olde,

other.

otherwise the Snaille will deuoure it : his time of sowing is, as Plinie writeth, at the setting of the Starre, called the Berward, that it may serue to seed in December: the second sowing is in Iannarie: the last in March. In Germanie they vse to sow them in March or Aprill, chiefly for fodder for their Cattell. To sow Tares, & as Plinie saith Beanes, in not broken vp ground without losse, is a great peece of husbandry: they slowze in Iune, at which time they are very good to slowze Horses: it is good to lay them vp in the cob, & to keepe them to serue cattell withall. Tares and Dates make a good medline sowed together. *Lupinus* in Latine, in *Lupines.* *Græke* *Κρυός κίμερος*, in Italian & French, almost as in latine, in Spanish *Altramuz*, in Dutch *Roomsche Boonen*, is a Pulse hauing one onely stalke, the leafe jagged in five diuisions like a Starre, the slowze white, the cods jagged, & indented about, hauing within them five or sixe seedes, hard, broad, & red, the leaues thereof do fall. This Pulse requireth least trouble, & is of small price, and yet most helpeth the ground of any thing that is sowne: for there can be no better manuring for barraine Vineyards & Corne fields then this, which either vpon barraine ground prospereth, or, kept in the Garner, endureth a wonderfull while: being sodden & laid in water, it feedeth Dren in winter very well: & in time of dearth (as Columella saith) serueth men to asswage their hunger: it prospereth in sandy & grauelly grounds, in the worst land that may be: neither loneth it to haue any labour bestowed vpon it, nor waigheth the goodnes of the ground. So fruitfull it is, as if it be cast among Bushes & Biziers, yet will it roote and prosper: it refuseth both harrowing and raking, & is not annoyed with weedes, but killeth the weedes about it. If dung be wanting to mend the ground withall, this serues the turne aboue all other, for being sowed, and turned in with the plow, it serueth the turne in stead of dunging: it is sowed timeliest of all other, and reaped last: it is sowed befoze all other Pulse, a little after Haruest: couer it how slenderly you will, it careth not (an excellent good seede for an euill husband) yet desireth it the warmth of Autumne, that it may be well roated befoze winter come, for otherwise the cold is hurtfull vnto it. It slowzeth thriue, first in May, then againe in Iune, and last in Iuly: after euery slowzing it beareth his cobbe. Befoze it slowzeth, they vse to put in cattell: for where as they will seede

The first Booke, entreating

Fenugreek

upon all other grasse or woodes, onely this for the bitternes thereof while it is greene, they leaue vntouched. Being dzied, it serueth for sustenance both of man and beast, to cattell it is giuen medled with chaffe, and for bread for mans vse, it is mingled with wheat flowre, or barley flowre: it is very good to keepe it in a smoky loaft, for if it lye any thing moyst, it is eaten of little wormes, and thereby spoyled. The leafe keepeth a certaine course and turneth with the Sunne, whereby it sheweth euer to the husbandman, euen in cloudy weather, what time of the day it is. Fenum grecum in Latine, in French Fenegres, and Fenigrent, in Italian Fenigræco, in Spanish Alholuas, in Dutch sometime by the Latine name, and commonly Rohorne, and Lockshorne: commeth by with a small stalk, the leafe like a thzælcaued grasse, it is solued well in a slender barren ground, you must take heed you plow it thicke, and not very deepe, for if the seed be covered aboute foure fingers thicke, it will very hardly grow. Therefore the ground must be tild with small plowes, and the seed presently covered with Rakes. There are two sorts of it, the one called of the common people Siliqua or Codde, which they sow for fodder in September, the other in January, or the beginning of February: when they sow it for seed, it flowereth in June and July, when also it beareth his Codde, but the seed is not ripe till August: it is dzelled to be eaten after the order of Lupins, with vineger, water, and salt, some put to a little oyle: it is vsed both for fodder, and diuers other vses. Furthermore, of Pulse called of Gellius, Legamenta, we haue these generall rules, that they all beare cods, & haue single rootes euery one, except the Beans, the which growling deepest. The stalks of the beane & the Lupine is also single, the others are all full of branches and slender slips, and all hollow. All Pulse for the most part, are to be solued in the spring, and require very rich ground, except the Lupine, that cares not where he lies, they are all sowed in the encrease of the Moone, except Pease: if they be watered before their sowing, they prosper the better: they are speedily to be gathered when they be ripe, for they suddenly wither, they will endure longest, being gathered in the change of the Moone. It is much to be regarded whether you will keepe or sell them, for the seeds in the encrease of the Moone doe waie greater: there are that preferue them in earthen vessels,

Drawing

Crawling ashes vnder them, and sprinckling them with Vineger: some vse ashes alone, others vse to sprinckle them with Berger wine vineger, as I haue said of the lentill. Moreover, the Brechies haue willed to mingle with the dung a little salt peter when you sow them, whereby they shall the better soeth and be the tenderer, and if they be not presently tender, they will to cast into the pot a little Mustard seed, which will make them straightway well. Theophrastus addeth diuers things beside, which were too long to tell.

R I C O. Is it needfull for euery husbandman to sow all these Graine and Pulse in his ground?

C O N O. No: but as I sayd before, in speaking of ground and seed, you must chiefly sow such as best agræ with the nature of your ground: howbeit, there are some of them that refuse no ground. There are certaine of them, as Varro sayth, that are not sowed for present necessitie, but for other afterturnes. And others againe that are of necessitie to be sowed, as Cozne for man, and Fodder for Cattell: of which must speciall care be had, that there be no want of them, without which wee can not liue: as Rie, Dates, and Buck. Lupines, and certaine Pulse else, for fodder, refuse no ground, though it be neuer so barren. Besides, when as the husbandman must not onely haue a care of prouiding such as serue for the sustenance of man, but also for such as serue for the feeding of poore Cattell, without which the ground cannot be husbanded: therefore must he sowe Pulse for the vse of man and beast, and Fodder in moze abundance for the sustenance of beasts. Amongst all sorts of Fodder, that is counted for the chiefe and the best, which the people of olde time, & the Italians at this day call Medica, some call it Tréfoile, the Frenchmen call it Grandresse, the Spaniards Alfalfa, others call it Burgundie-grasse, because it was brought in by the Burgundians, it is now also come into Germanie, and there called Welsholken. Plinie writeth, that it was brought by the Romanes, out of Media into Italy, differing almost nothing from Tryfolly, or threleaued grasse: but that it is greater, higher, and ranker, for in stalke, lease, and slowze it is all one: it groweth altogether bushing in leaues. In the toppe of the stalke it putteth forth short coddies, writhen like hoznes indented about, and hauing as it were, little pyckles, wherein is the

Fodder
for Cat-
tell.

Medica:

seede shaped like a Stone, and growing to the God in bignes as
 the lentill, which being chawed, tasteth like Beafe: euery God hath
 his seede, it requireth a fat ground without stones, full of iaype
 and rich: in many places it cometh not vp, in others it springeth
 very thicke. Varro giueth charge, that it be not sowed in to dry
 a ground or tickle, but in good and well seasoned. Plinie would
 haue the ground be drye and very rich. Columella biddeth, that
 the field, where this Medica shall be sowed, should be broken vp
 about October, and so to lie mellowing all the winter, and then
 to stirre it in February, & the stones cast out, to harrow it well,
 and after in March to order it garden-wise, casting it into beds;
 euery bed ten foote broad, and fiftie in length, so that they may be
 easily watred, and of euery side well wadded: then laying on good
 old dung, let it lie till Aprill, and at the end of Aprill sowe it in
 such proportion, as euery handfull of sead may occupie fise foote in
 bredth, and ten in length, and couer the sead out of hand, taking
 them with wooden rakes, for the Sunne will soone burne them.
 After it is sowed, that it come vp an inch in height, you must be
 ware you touch not the ground with any yron instrument, but
 eyther with your fingers; or with Rakes of wood: wæde it well
 from all other noysome things, otherwise it will grow wilde and
 turne to pasture. Let the first haruest be long deferred, to the end
 he may somewhat shed his seedes: at other times you may mowe
 it as soone as you will, and giue it to your Cattell. Such as are
 skilfull in husbandry, doe say, that if you mingle Dates with the
 sead of Medica, and sow them, they will cause them to stock very
 well: it is sowed in Aprill, or later, in May, to scape the frosts, and
 the sead is cast in like sort as wheat is. When it beginneth to
 branch, all other wædes must be wæded away, and being thus or-
 dered, you may mowe it fise times a yere. It floweth fise times,
 or at the least fise times, so it be not cut. When you haue mowed
 it, water it well, & as it springeth, wæde it againe. And thus as
 I sayd, you may mowe it fise times a yere, and it shall thus conti-
 nue ten yeres together. if enricheth the ground, all poore and feeble
 Cattell are soone brought vp with it, it likewise healeth Cattell
 that are diseased, but when it first springeth, till cattel be acquain-
 ted with it, you must giue them but little at once, least the strange-
 nesse of the foode hurt them, for it maketh them to swell, and breedeth

doth great abundance of blood. Columella writeth, that one acre of it will well finde thre Horses a yere. In some Countries this hearbe doth grow in great plentie in euery Meadow, eyther of the nature of the ground, or through the disposition of the Heauens, and sometime the reliques of that which hath borne long agee solwen doth yereley spring of the seede that falleth, & ouergrowen with Grasse and weedes, doth change into Meadow. I see no cause but that it may grow of it selfe, but that perhaps such Plants as are brought out of strange Countries require sowing and dressing: it is best to be mowed when it beginneth to blowe, for it must not be suffered to seed, whereby the Fodder shall be the better: which being well layd vp, will continue in goodnesse thre yeres, to the great profit of the grazer, for as I haue sayd befoze, there can be no better Fodder deuised for Cattell, where with they will better seede, and sooner rise. The next in goodnesse to this Medica is Cytisus, wonderfully as Plinie writeth, commended of Aristomachus, and as Virgill sayth, a good fodder for Sheepe, and being drie, a delightfull food to Swine: it may be mowed sundry times in the yere, to the great commoditie of the husbandman: a little whereof doth soone sat vp cattell, neither is there any other grasse that yeldeth eyther moze abundance or better Milke, the most soueraigne medicine for the sicknesse of Cattell that may be: beside, the Philosophers promise, that Bees will neuer faile that haue this grasse growing nere them: therefoze it is necessary to haue your ground stozed with it, as the thing that best serueth for Poultrie and Cattell: the leaues and seedes are to be giuen to leane and drooping Pullen: some call it Tellenin, some Trefoile, some great Helilot, the Romanes call it Trifolium maius, great tralle, it is a plant all hairy and whitish, as Rhamnus is, hauing branches halfe a yard long & moze, wherupon groweth leaues like vnto Fenigraeke or Clauer, but something lesse, hauing a rising cress in the midd of them. This plant was first found in the Iland Cythno, and from thence spread through out the Cyclads, and so to Greece; whereby the stoz of Chale came to be great: neither is there any countrey at this day, where they may not haue great plentie (as Columella saith) of this shrub. In Italy it groweth about the enclosures of vineyards, it shrinketh neither for heat, cold, frost, nor snow: it requir eth good ground, if the

Cytisus.

The first Booke, entreating

weather be very dry, it must be watered, and when it first springes well harrowed: after thre yeres, you may cut it downe, and giue it your Cattell. Varro would haue it sowed in well ordred ground, as the seede of Coleworts should be, and after removed and set a foot and a halfe asunder, or else to be set of the slips. The time of sowing of Cytisus is either in Autumne, or in the spring, in ground well plowed and layd out in beds: if you want the seede, you may take the slipes, so that you set them foure foot asunder, and a bancke cast about them with earth well dounced: you may also set them befoze September, when they will very well grow and abide the colde in winter, it lasteth but thre yere. Columella hath two kindes of Cytisus, one wilde, the other of the garden. The wilde doth with his claspers seede very well: it windeth about, and kills his neighbours as the Iuie doth: it is found in Corne fields, specially amongst Barley, the flowre thereof is like the flowre of Pease, the leafe, if it be bruised, smelleth like rocket, and being champred in the mouth, it tasteth like Chiche, or Pease. There is an other kinde of Fodder among the plants, vnknewen to the olde wryters, very good to feed both Cattell and Poultrie. I know not whether it be knowen in other Countries beside Germanie, the common people call it Spurie, or Speric: it hath a stalke a foote in height or more, bushed forth in many branches, it hath a white flowre without any leafe: the flowre endeth in little knops as Flare hath, containing in them a very little seede like Rapeseed. They are much deceiued that take it for Cytisus, when that (as Dioscorides saith) hath leaues like Fenugreke, and this is altogether without leaues: neither is the seede any thing like, though the vse be almost one. The best milke and butter in Germanie, commeth of this feeding: wherefoze it is esteemed almost as good as Barley, or other graine: the straw is better then any Hay: the chaffe feedeth as well as any graines: the seede feedeth Pigeons and Poultrie in winter passing well: it is sowed in sandie and light grounds all the Sommer long, and some sowe it in Spring time with Dates, for the seede sake: in Autumne and Haruest time it is sowed to feede Cattell: it is profitable for Husbandmen that dwell in sandy and grauelly Countries, wherefoze they should neuer bee without good store of it, for Hennes, Bats, Goates, Sheepe, Oxen, and all kinde of Cattell delight very much

Spetic.

In it: now remaineth the sowing of Flaxe and Hempe.

R 1'6 0. Floke for it.

CON 0. These, although they be not to be received in the number of Corne nor Pulse. Fodder nor Hearbs, yet is there great account to be made of them with the husbandmans things, without which no house can be furnished, nor man well apparrelled: which being beaten to a softnesse, serueth for webs of linnen, and twisting of Cords: and more, of this so little a seede doth spring that, which (as Plinie saith) carrieth the whole world hither and thither, that bringeth Egypt to Italy, & carrieth vs from Calces to Ostia in 7. daies. Linum in Latine: in Greeke, λινον in Italian and Spanish, Lino: in French Dulin: in Dutch almost like, sauing that they call the seed Lin. And the plant Flaxe, is a very common Flaxe. hearbe, wherewith women are set a worke: it hath a slender stalk, not much vnlike to Spery, but that it groweth higher a little, and bigger, with narrow leaues, and long blew floweres in the top, which falling away, leaueh behind them litle round knops as big as a pease, wherin are enclosed yellow seeds: it delighteth in rich ground, & somewhat moist: some sow it in barraine ground, after once plowing, it is sowed in the spring, and gathered in summer. In Gelderland and Gulicke, where there is great store of it: they sow it about the beginning of May: there are againe that obserue three seasons for sowing of it, as the weather shall fall out, for it requireth raine & moiffure: the ripenesse of it is perceiued by the waring yellow, & swelling of the knops that hold the seed, being then plucked vp, and made in litle bundles, it is dzyed in the Sunne, the rootes standing vpward, that the seede may fall out. Some vse againe to card off the knops with an yron combe & dzying them in the same to gather the seed. The bundles after wards are laid in water heated with the sunne, with some waight vpon them to keepe them downe, the rinde waring loose, theweth when they haue bene steyped enough. When the bundles vnloosed and dzyed in the sun, are beaten with beetles, when as the outer rinde is pilled off, and combed & hacked vpon an yron combe: the more wrong it suffereth, the better doth it proue: the towle is scuered from the flaxe, and appointed for his vse, so are they scuerally spun vpon the distaffe, made vp in bottomes, and sent to the weaues; whereof are wouen webs, to the great commoditie of all men.

men. Last of all, the web is laid out in the hot Sunne, and sprinkled with water, whereby it is brought in a passing whitenesse. It may be remembred, that not long since the women of Germanie knew no costlier attyre. The best Flaxe that is at this day, is brought from Muscouia, Liouonia, and those Countries, far exceeding ours in height and goodnesse, except there be great increase of it; and plentie in the Countrey where you dwell. Columella would not haue you meddle with the solving of it, for it is most hurtfull to the ground, as Virgill hath noted.

Flaxe, where it growes doth burne the Field.

The like doth Oates and Poppey yeeld.

And therefore (but that women must haue some things to occupy their hands withall) it were moze profit to solw the ground with Cozne, and to buy linnen abroad, especially if you waigh the hurt of your ground, & the charges of the making. Hempe, in latine is Cannabis, in Greeke κενναβις ήμερος, in Itallian, Canabe, in Spanissh Cannamo, in French Chamura, and in Dutch Haueph, is a plant of the Rædish kinde, hauing a very strong sauour: it groweth with a single stalk, & many times to such a height, that it matcheth with indifferent trees: it is of great necessitie for the vse of man, and serueth both for making of Canuas, & framing of ropes: the stalk hath many knots, out of which proceedeth branches with narrow leaues indented & sharpe. Dioscorides describeth both the wilde Hempe, & the garden Hempe, to haue leaues like the Aloe, hollow stalks, a sinking sauour, & round seed. There are two kinds of it, the Male, that is without flower, & beareth a seede of sundry colours: and the Female, that, to recompence her barrennesse, doth yeeld a white flower. It is solwed in Gardens, Orchards, or other good ground, (as Plinie would haue it) after a Southwest winde, with vs it is solwne in the end of Aprill, for it cannot alway with cold: some sow it at the rising of the star, called the Berward, which is at the end of Febbruary, or the beginning of March: it loueth rich ground, well dunged & watred, and hæpe plowed: it is naughtie solving of it in raynie weather, the thicker you sow it, the tenderer it will be, and therfore many times it is solwne thirse, though some there be that appoynt to euery foot square five seeds. The Female, or sible Hempe is first pulled vp, after wards the Male, or the carle, when his seede is ripe, is plucked vp, and made

Hempe.

made vp in bundels, layd in the Sunne for thre or foure dayes, and after is cast into the water, with weight laide vpon him for eight or tenne dayes, till he be sufficiently watred, and as Flaxe, till the rinde ware loose: then taken out, it is dyed with the Sun; and after broken in the brake, and then combed and hacked for Parne and Ropes. Of Hemp, are made Cables, Cordes, Nets, and Sailes for Shippes, garments for Labourers, Shirts, and Shætes: the Chales or Stalkes serue for heating of Duens, or kindling of fires.

RIGO. In the Countrey of Gulicke, and some parts of Fraunce, I remember an hearbe planted of the common people with great diligence, that serueth as they said for Diars:

CONO. You say true, that hearbe, Cesar in his Commentaries of the warres of Fraunce, calleth *Glastum*, in Greeke *ιοαγης* *Woade*, in Italian *Gnado*, in Spanish *Pastel*, in French *Gudum*, and *Guelde*, in Dutch *Weyt*: the Diars doe vse it, and with them it is greatly esteemed, & great gaine ariseth therof vnto the people of Gelderland, Julies and Turin, & diuers Countries else: the leaues as Plinie writeth, are like vnto Dock leaues. Dioscorides writeth of two kindes, the wilde, and the Garden *Woade*, saying, that the Garden *Woade* which Diars vse, haue leaues like *Plantine*, but something thicker, and the wilde leaues like *Lentill*, with yellow flowers: with this hearbe Cesar, saith the people of England, were wont to paint their faces and bodies, to seeme more terrible to their enemies: it requireth like sowing and soile as *Wheate* doth: but it is a great soker of the ground, and much hurteth it: it would haue a very rich and a fat ground, and well digged: for the ground were better to be turned vp with spades then with *Plowes* for the sowing of this plant, & it must be very wel weeded. It is sowed in Gelderland in April, and after the common peoples rule, in Easter week: at the first fallowing they marle the ground, after sowe it: you must be very heedfull in the weeding of it. When it is grown a handfull hie and more, they suffer it not to blowe, but with an instrument for the purpose, they cut it close by the roote, wash it, and carry it to the Mill, and suffering it to grow againe, they cut it thre or foure times, and so leaue it to soede. The greene hearbe they grinde in *Milles* like *Apple Mills*, pressing it til they get out all the iuice therof, then roule they it

The first Booke, entreating

by with their hands in round balles, and so lay it vpon boarded floures to be dyled.

R I G O. You haue greatly delighted me, in describing vnto me the order of sowing of seeds, without which, not onely the people of the Countrey, but also the Courtier and Citizen are not able to liue: my desire is now to vnderstand the order of harvest, the Country mans long looked-for-time, & the reward of all his toyle.

Haruest.

C O N O. I will proceede in the accomplishing of your request. When the corne is ripe, befoze it be scorched with the great heat of the sunne (which is most extreme at the rising of the lesser dog) it is to be cut downe out of hand: for delay herein is dangerous. First, because that birds, and other vermine will deuoure it: and againe, both the Graine and the Care, the toppe and the straw being brittle and ouer dry, will some fall to the ground: if storme or tempest chance to arise, the greatest part therof wil to the ground, and therfoze it must not be lingred, but when it doth looke yellow in euery place, and befoze that the Graine be thozow hard, when they come to looke reddish, you must then haue it in, that it may rather ware in the barne, then in the field. Experience teacheth, that if it be cut downe in due time, the seede will grow in fulnes as it lyeth in the barne: for the Dawne increaseth, the Corne growes greater: at the change you must gather such seede as you would should be least faultie. Varro saith, that the best time for Haruest, is betwixt the Sunne stay, and the Dogge dayes: for the Corne they say, doth lie in the blade fiftene daies, floureteth fiftene dayes, and ripeth in fiftene daies. Amongst Graine and Pulse, the first that is to be gathered, is Rape seede. And because the seede, when the cod beginneth to ware yellow, declareth ripenesse, it must be gathered out of hand: and sith the seede will easily scatter, it must be layd eyther in plaine smoth places in the Field, or vpon Canasse: and if it be presently to be carried, the Wayne or Cart must be lined with sheetes, lest with logging and trotting of the carriage, the seede fall thozow. You must take good heed as well heer in, as in all other Pulse, that you prevent the rayne, for the rayne falling, the cods doe open. As soone as your Rape seede is off, if the ground be plowed, you may sow Bucke, or Branke, as they call it: so that of one peece of ground in one yere, you may make two Haruests. Next vnto Rape haruest in these

Rape Haruest.

these Countries, followeth the harvest of Winter Barley, which is to be dispatched before the seede (the Eares being over-dried) do fall, for they have not huskes to containe them as Wheate hath, and the eares being brittell, will soone fall: yet some thinke it best to let the Barley lie a while in the field, whereby they thinke the Graine will waxe the greater. Then followeth the Heurpe harvest. But first (as I said before) the Fimble or the Female, is pulled, and is dried a while in the Sunne, then (bound up in bundels) it is throwne into the water, and kept downe with some weight, that it swimme not above. After likewise the Pale, the seede declaring his ripenesse is pulled up, and the seede being threashed out, it is cast into the water, till the Stalke be soft: after, being dried in the Sunne, it is made up in bundels to be knockt and shaled in Winter euenings. Rye is to be mowed in June or July, and after that, Wheate. No better rule, then before the Graine be hard, and when it hath changed colour. An old Proverbe (as Plinie saith) it is better to haue in harvest two dayes to soone, then thre dayes too late. In Rie there is not such feare in scattering as in Wheate, which as soone as it is ripe, will shed with euery winde. Wherefore good heed must be taken, that you linger not with Wheate after it is ripe: although Plinie affirmeth, that Wheat will haue greater yield when it stands long: but surely deferring of it is dangerous, as for shattering and falling of the seede through Rosome and weather: as the proofe was seene in the great windes that were in the yeere of our redemption, 1567. Then followeth the harvest of Pease, Beanes, Tares, and Lentils, according as they are timely sowed, wherein you must take heed, as I warned you before in Rape seed, that they lie not abroad in the raine: for if they doe, they will open and lose their seed. Last of all cometh the Harvest of the other Summer seede, as of Barley, Pannicle, Millet, and Dates. It is found by experience, that raine is good for Dates after they be downe: for it causeth them to swell and to be fuller, and to that end they are left in the field many times two or thre weekes after they be downe.

R I G O. What order haue you in your reaping?

C O N O. There are diuers sorts of reaping, according to the manner of euery Country. Some with Sythes, which differ also

Haruest
for Win-
ter Barley.

Hemp har-
uest.

Rie and
Wheat
haruest.

The har-
uest of all
other corn
and pulse.

Diuers
sorts of
reaping.

The first Booke, entreating

as the worke requires. In this Countrey we vse three sorts of corne Sithes, for either we haue a Sithe like a Sickle, which holden in the right hand, they cut the straw close by the ground, and haue in the left hand a long hooke, wherewith they pull together that that they haue cut, and lay it in heapes: and in this sort Wheat and Aie, and such Graine as hath the sturdiest straw, is reaped. In other places as in Iulis, where the ground being very rich, the Corne groweth higher and rancker, there they hold their left hand full of Corne, and with the right hand with toothed Sickles they cut it, leauing the straw vnder their hands long, to helpe the ground withall. In other places they vse a greater Sithe with a long Swath, and fenced with a crooked frame of Sticks, wherewith with both their hands they cut downe the Corne, and lay it in Swathes as they doe Grassie when they mowe it, and with that they mow the higher sorts of Corne. Varro and Columella, and other, doe tell of sundry other sorts of reaping. Palladius teacheth, beside the labour of men, a shorter way to be done with an Dre, that shall in short time cut downe all that groweth, which was wont to be vsed in Fraunce. The deuise was, a low kinde of Carre with a couple of whæles, and the Frunt armed with sharpe sickles, which forced by the beast through the Corne, did cut downe all befoze it. This tricke might be vsed in leuell and champion Countries: but with vs it would make but ill-fauoured worke. In reaping, you must regard to goe with the winde: for if you worke against the winde, it will be hurtfull, as Xenophon saith, both to your eies and your hand. If the straw be but short, you must goe nêrer the ground, if it be long, you may put your Sickles to the middlest to dispatch it the sôner, & to make it thessly the better: and the stubble vpon the ground must either according to Virgils rule be burnt, or rot vpon the ground, for the bettering of the land. Some preserue that which is longest, to thatch Barns, Stables, & Countrey Cottages withall. And where Hay is scant, it serueth for foddzing of Cattell: for Barley straw is a food that Bullocks loue well, and beside, all kinde of straw is good to litter withall. When the Corne is downe, it is presently to be bound in sheaues: although Barley, Dates, and other Corne and Pulse is made vp in Cops and Ricks, but not without hurt and hazard. The Corne being cut, is not to be had into the Barne presently,

but

but to be let dry, according to the nature of euery Grayne and Pulse: for if it be carried in befoze it be thorough dry, it corrup- teth and rotteth. Dates and Buckie, are longest left abroad, as also Lentiles, Pease and Pulse, because they are longest in drying. Wheat may soonest be carryed, if it be not mingled with too many Weedes, that hinder the drying of it. When Haruest is in, the ground must out of hand be plowed, both to kill the weedes, and to make it the mēter for the next sowing. The Corne cut downe and drie, is to be laid either in Barnes, Houels, or Stacks: and after in Winter, to be trode out with Beasts, or threshed out with Flailes, and to be cleaned with Fannes.

Plowing
after Har-
uest.

RIG O. In Italy they vse to tread out their Corne with Cat- tell: the like reporteth Xenophon of the Grækes.

C O N O. I haue sene it my selfe, where they rather take Horse then Oren: and that time they also winnow their Corne, thinking the Southwest winde to be best for that purpose: but to stay for that, Columella thinketh but the part of a small husband.

RIG O. I see you haue very large Barnes, what order ob- serue you in the building of them?

C O N O. You must so set your Barne, that the Corne may be well brought into it, and see it be very close on euery side, lea- uing open a space for two doores, a fore doore, and a backe doore, but so, as neither of them open to the West, but rather North and East, and at both sides of the floze bestow your Corne in seuerall tallies and mowls, so that you may easily come to euery one at your pleasure. And though the Corne be layd vpon battes in the flozes, yet let there be a space left in the midst, that may be open to the very top, that you may fetch what sort you list to be thre- shed. In some places they haue a Pulley in the midst, wherewith they hoyle vp the Corne to the very rafters of the house. In Hol- land they haue few close Barnes, but all Houels and Stacks, so placed with hanging roffes vpon postes, that with pinnes and wiaches, they may heighten it, or let it downe as they list.

The Barne

RIG O. Those kinde of Barnes they say, are not so subiect to Mice and Rats, nor so chargeable as the other.

C O N O. Howsoeuer the Barne be, you must place it as high as you may, lest the Corne be spoyled with moysture or dampes.

damps : some thinke it better for them to be thatched then tyled : the largenesse must be according to the greatnes of your occupyng. Some, to the end Cats and Weazels may the better come by, they do vault the floze with bricks, and laying rafters thereon, do lay on their Cozne. The floze must be sayre and smooth made, so as the Cozne may be well thresshed or troden out. Columella would haue the floze faire paved with flint or stone, whereby the Cozne will the soner be thresshed, and the floze not hurt with beating and tramplng of Oxen, and when it is sand or winnowed, it will not be full of grauell and durt, as the earthen flozes yeld. But we content our selues with our earthen flozes, well made, and of good earth, mixed with a little Chaffe, and the grounds of Dyle; for this preserueth the Cozne from Mice and Emets. You must make it very euen and leuell, and after it is mingled with Chaffe, let it be well troden, and so suffered to dry. You must keepe also from it Beastes, and Poultrie, which with tramplng & scraping will make it rugged and vneuen. When the floze is dry, the Cozne laid on it, is beaten out with Flayles, and cleansed with Fans, though in some place they rather like to tread it out with Oxen, and to winnow it after the old fashion, with the winde.

R I G O. Well Sir, when you haue thus thresshed your Cozne, what waies haue you to keepe it from winels :

Garners.

C O N O. The Garners, or Cozne Lofts, wherein your Cozne thus thresshed and cleansed shall be layd, must stand high, that they may be blowne through with the Easterne & Northerne winds, to which no moisture from the places adioyning must be suffered to come: for the quarters of the heauen that are coldest and dryest, doe both preserue Cozne the longest. In Spaine and Apulia, being hot Countries, the winde is not onely let in on the sides, by windowes, but also at the bottome by grates. Some againe preserues it in vaults vnder the ground, where the dry earth doth cherish such fruites as she hath brought forth, vld as Varro saith, in Spaine and Carthage : and in our dayes we vse to keepe both Wine and Graine in such vaults. In Countries that are wet and watrish, it is better to make them in Garrets, as high as may be, hauing good regard that it be well walled and flozed. Moreover, where as Cozne is subiect to Mice and Termine, except it be very safely layd vp, it will sone be consumed : there

foze you must make with Clay, mingled in stead of straw, with hayze, then ouercast it within and without with white Potters Clay: last of all, steepe the rootes and leaues of wilde Cucumbers in water two dayes, and with that Water, and Lime, and Sand, make Plaster, and wash therewithall the walles within: albeit, Plinie counts Lime as hurtfull a thing as may be for Cozne. Some mingle with Lime the Urine of Cattell, as a thing that will destroy Myuels, or the leaues of Houselœke, or Wormewood, or Hoppes: but specially if you haue it, there is nothing so good to destroy all such Vermine, as the Dzegges and bottome of Oyle: some vse in the head thereof, the pickle of Herrings. Having in this sort ozozed their seedings, and their sowes being drie, they suppose that no hurtfull worme shall annoy whatsoeuer Cozne they lay in them. Some lay vnder their Cozne, Flæwozt: others thinke it an assured remedy, if they be often fanned and winnowed, and thereby cooled: but Collumella thinkes it vntrue, and that by this meanes the Vermine shall not onely be not diuen out, but they shall be dispersed throughout all the Cozne, which if they otherwise be left alone, will meddle with no more then the outward parts, for a handbreadth depth within, there neuer breeds any Myuels, and therefore he thinks it better to let that alone that is already corrupted, and will goe no further, then with farther meddling to marre all: for it is an easie matter, whensoever yie nêde to occupy it, to take away that is tainted, and to vse the rest. But for all this, experience teacheth vs, that there is not so good a remedy to destroy the Myuell, as is the often fanning and winnowing in Summer. After the first two yeeres, they hold opinion, they will not meddle with Cozne: but I weary you with carrying you too much about, and if it please you, we will returne home.

R I G O. If it be for your ease so to do: otherwise there can be no greater pleasure to me, then walking abroad to heare you talke of husbandry. Are these that I see your Pastures, where your fat Dren, and your Mares, and your Colts goe leaping.

Of Pasture
and Med-
dow.

C O N O. They are so I lay all my pastures severall, for euery kinde of Cattell to be by himselte: in the hithermost that you see, are my Cattell that I fat: in the next are my Horses, my Mares, and my Colts: in the next are my young bræde, Parcelings, and

The first Booke, entreating

Two yereslings. The Meddowes that you see in yonder Valley, lye all to be plowed. Here next to my house, are my Sucklings, that are brought to their Dams to sucke thysse a day, and therefoze ought to be nere: howbeit, such as seede farre off, must diligently and daily be looked to, for feare of diseases.

RIG O. Since I haue troubled you thus farre, I cannot leaue till I vnderstand all your orders.

CON O. No trouble at all to me; but rather as I said before, the recording hereof, is my great ioy: for in talking of these matters you bring me a bed.

RIG O. I pray you then take the paines to describe me the ordering of Pastures and Meddowes, when as there seemeth to be a great affinitie betwixt them and Cozne ground, and because they are sometimes also to be plowed, me thinketh this part remaineth to be spoken of.

CON O. With all my heart, I will satisfie your desire in as much as I am able: and indeed, since I haue all this while spoken of Cozne ground, it is not out of order to tel you my minde of Pasture: & although Cato in some places doth giue the preeminence to the Vineyard: yet other old Writers doe most of all preferre Pastures, as the ground that requireth least to doe about it: and therefore they were called, as Varro saith, Prata, because they were Parata, alway in readines, & needed neither great charge nor labour, nor are in danger of storme or tempests, as other kinde of ground is, except such parcels as lie nere Riuers & Flands, which are sometimes ouerflowed: and that discommoditie is sufficiently recompenced with the fatnesse that the water leaues behinde it, which enricheth the ground, and makes it the better perely to yield his gaine cyther in Pasture or Meddow: The Pastures with vs doe commonly serue both for Pasture or Meddow when we list, specially in such places where the ground is rich and drie, which they had rather to employ to Pasture, because with dunging of Cattell, it wareth alwaies the better, whereas with continuall bearing of Hay, it hath growne to be melle and naught: but where the ground is alwaies wet and watrish, there it is better to let it lye for Meddow. Columella maketh two kindes of Pasture ground, whereof one is alwaies dry, the other ouerflowed, The good and rich ground hath no neede of ouerflowing.

the

the Hay being much better that groweth of the selfe goodnesse of the ground, then that which is forced by waters: which sometime notwithstanding is needfull, if the barrennesse of the ground requireth it: for in bad and naughty ground, good Meddow may be made, if it lie to be ouer-flowne: but then must the ground neither lie hollow, nor in hills, least the one of them keepe the waters vpon it too long, and the other presently let it forth againe. Wherefore lyeth the ground best, that lieth leuellest, which suffereth not the water to remaine very long, nor auoideth it too soone. If in such ground it chaunce to stand ouer-long, it may be auoided with water streame at your pleasure: for both ouerplus, and the want of water are alike hurtfull vnto Meddowes. It is very handsome, where dry and barraine ground lieth so by the Riuer, as the water may be let in by trenches when you list: in fine, the occupping of Pasture grounds require moze care then trauaile. First, that we suffer not Bushes, Thoznes, nor great Weedes, to ouer-grow them, but to destroy some of them, as Brambles, Bizets, Bulrushes, and Sedges in the end of Summer, and the other that be Summer weedes, as Sowthistell, and all other Whiskels, in the Spring. You must take heed of Swine, that spoile and turne by the ground ill-sauouredly, and all other Cattell: except it be in hard and dry weather, for otherwise they gult and marre the ground with the deepe sincking of their feete treading in the Grasse, and breaking of the Rootes. The bad and barraine grounds are to be helped with dung in Winter, specially in February, the Mone encreasing, and the Stones, Sticks, and such baggage as lye scattered abroad, are to be throwne out sooner, or later as the ground is. There are some Meddowes that with long lying, are ouer-growne with Mousse, which the old husbandes were wont to remedy with casting of certaine seedes abroad, with laying on of dung, specially Pigeons dung: but nothing is so good for this purpose, as often to cast Ashes vpon it, for that destroyeth Mousse out of hand. Notwithstanding these are but troublesome remedies. The best and certaintest is to Plowe it: for the ground after his long rest, will beare goodly Corne. But after you haue plowed it, it will scarce recover his old estate again for Pasture & Meddow in thre or foure yeeres. When you meane to let your ground lie againe for Meddow or Pasture,

The first Booke, entreating

your best is to solve it with Dates, and to Harrow the ground such and leuell, and to hurle out all the stones and such things as may hurt the Sythe: for Dates is a great breeder of grasse. Some doe cast Hay-seede, gathered from the Hay-loft or the Bakes, ouer the ground before they harrow it. Others againe, when their Meddowes haue lien long, solve Beanes vpon them, or Rape-seede, or Millet, and the yere after Wheate: and the thurd yere they let them lie againe for Meddow or Pasture. You must beware, that while the ground is loose and soft, you let not in the water, for the force of the water will wash away the earth from the rootes of the Grasse, and will not suffer them to grow together: neither must you (for the like danger) suffer Cattell to come vpon it, except in the second yere Goates, or Sheepe, or such like, after you haue mowed it, and that if the season be very drie. The thurd yere you may put on your greater sort of Cattell againe, and if the ground be hilly and bartaine, you may dung the highest part of it in February, as I said before, casting on it some Hay-seede, for the higher part being mended, the raine or water that comes to it, will carrie downe some part of the richnesse to the bottome, as I said before, when I spake of the manuring of earable ground. But if you will lay in new ground for Meddow, and that you may haue your choise, take such as is rich, deuy, leuell, or a little hanging, or chuse such a valley, where the water can neither lye long, nor runne away to fast: neither is the ranke Grasse alwayes a signe of good ground: for what goodlier Grasse is there saith Plinie, then is in Germanie, and yet you shall there haue sand within a little of the vpper part. Neither is it alway a watry ground where the Grasse growes high, for the very Pountaines in Sycherland yerd great and high grasse for Cattell. The Pastures that lies by the Lakes of Dumone in Austry and Hungarie are but slender, nor about the Rhine, specially at his falling into the Sea about Holland, as likewise in Fraeseland and Flaunders. Cæsar Vopiscus, the Fields of Roscius were the principall of Italy, where the Grasse would so soone growe, as it would hide a staffe in a day. You may make good Meddowe of any ground, so it may be waired. Your Meddowes are to be purged in September and October, and to be rid of all bushes, brambles, and great foule Woods, and all things else that

that annoy them, then after that it hath often bene stirred, and with many times plowing made fine, the stones cast away, and the clods in euery place broken, you must dung it well with fresh dung, the Horse encreasing. Let them be kept from gulling and trampling of Cattell. The mouldhills and dunging of horse and bullocks, must with your spade be cast abroad, which if they remaine, would either be harbourours of Rats & such like Vermine, or else breeders of hurtfull & vnprofitable weeds, your Beddowes must be layd in towards March, and kept from Cattell, and made very cleane: if they be not rich, they must be mended with dung, which must be laid on, the Horse encreasing, and the newer the dung be, the better it is, and the more Grasse it makes: which must be laid vpon the top of the highest of the ground, that the goodnes may runne to the bottome. The best hearbe for Pasture or Beddow, is the Trefoile or Clauer: the next is Sweet Grasse: the worst as Plinie saith, is Rushes, Fearn, and Horsetaile.

RIG O. How shall I know when the Grasse is ripe, and ready to be cut?

CONO. The time of cutting of it, is when the Bent beginneth to fade and ware stiffe, and before it wither. Cato bids not to mow your Grasse with the latest, but before the seed be ripe. It is best cut downe before it wither, whereby you shall haue both more, and better Hay of it. Some, where they may ouerflow it, do water it a day before they cut it, it cutteth better after a dewie euening.

RIG O. Doe you cut grasse in the like sort as you doe Cozne?

CONO. Almost in the like sort, some doe vse Hozt Sithes, mowing it with one hand: but we here doe vse the common great Sith, mowing with both our hands, as I said before, that Dates, and Barly, and such other like Cozne was mowed, which Sithes we vse to sharpe with Whetstones, or instruments of wood dressed with sand. The Grasse being cut, must be well tedded and turned in the Summer, and not cocked till it be dry: and if it chance to be wet with raine, it must not be turned, till the upper part be dried. There is a measure to be vsed in making of it, that it be not had in too drie, nor too greene. The one sort, if the iuyce be dried vp, serueth onely for litter: the other (too greene and moyst) if it be caried into the Loft, rotteth, and the vapour being ouer-heated, fallieth on fire and burneth. And if so be the raine chance to fall

The first Booke, entreating

upon the grasse that is new cut downe, if it be not stirred, it takes not so much harme: but if it be once turned, you must still be stirring of it, otherwise it will rot. Therefore the uppermost part before it be turned, must be well dried with the Sunne and the Winde: when it is dried, we lay it in windowes, and then make it up in Cokes, and after that in Holes, which must be sharpe and piked in the top, the better to defend it from the raine, which if it doe not fall, yet is it good so to doe, that they may sweat in the said Holes, and digest whatsoeuer moisture is in it. And therefore good husbands doe not lay it up in their loftes, till such time as it hath sweat in the Field. Grasse is commonly mowed twice a yeere, in May or June, and againe after Harvest: the first mowing is counted the best. As soone as the Hay is off after the first mowing, it would be overdoled (if you may conveniently) to the end the after swath may be mowed in Autumne, which they call in Latine Cordum. In the Dukedome of Spoleto, it is said they mowe foure times a yeere, being drie ground, and diuers other places thise a yeere. Medica may be cut fixe times a yeere, if it be ordered as it ought to be. It is best mowed when it beginneth to flower, for it must not growe to seede: being dried it is made up in bundels, and kept good thre yeeres, to the great comfort of poore Cattell: but because I haue tolde you of Medica before, it is but vaine to rehearse it againe.

R I G O. You haue spoken of a very large and great knowledge of husbandry, which out of doubt requireth in a man great trauaile and diligence.

C O N O. It requireth indoe great diligence and trauaile, howbeit, it recompenceth the paines and the charges, not without great gaires, whereof Plinie bringeth for example Caius Crælinus, who when upon a little piece of ground he reaped more fruit and gaines a great deale, then his neighbours did upon their great occupiers, grew into great hatred amongst them, as though hee had bewitched their field: whereof being accused by Spurius Albinus, and fearing to be condemned, when the Quest should passe upon him, he brings all his instruments of husbandry into the common place, and brought in therewithall his daughter, a iolly great Kisse, his iron toles perfectly well made, great Spades, mightie Coulters, and lustie Cattell: Loc here
(quoth

(quoth he) mine enchauntments, neither can I bring before you my great and painefull labours, watchings, and sweat, whereupon hee was presently quit by the voyces of them all. But I keepe you too long about my husbandry, it is godd time we leaue and goe home.

The diligence of Caius Cressinus,

RIG O. With a good will, If I may obtayne one thing at your hands, which when you haue made an end with, I will trouble you no longer.

C O N O. What is that ?

RIG O. If a man would buy a Farme or a Manor, in what sort shall he best doe it ? for I doubt not but you haue good skill in such matters.

C O N O. Ischomachus in Xenophon, telleth, that his father taught him that he should neuer buy a peece of ground, that had bene skilfully or curiously husbanded before, but rather such ground as by the slothfulnesse and pouerty of the Master, hath lyen vntilled and neglected, and yet seeme to be very good ground: as it is better to buy a leane Horse, so that he be not old, and that he haue the tokens of a good Horse, then a fatte Horse, and one that is curiously kept. A well ordered peece of land is held deere, and yelds no great encrease, and therefore is neyther so pleasant, nor so profitable, as that which by good husbandry may be made better. Caro would haue two thinges to be obserued in buying of land: The goodnesse of the ground, and the wholesomenesse of the aire: of which two, if either be lacking, whoso euer doth buy it, he iudgeth him madde, and meete to be sent to Bedlam: for none that is well in his wittes, will bestow cost vpon barraine ground, nor hazard himselfe for a little rich ground, to be alwayes subject to pestilentfall diseases: for where a man must deal with the Diuell, there is not onely his commoditie, but his life doubtfull, and rather his death then his gaine certaine. After these two principall notes, as Columella saith, Caro added of like weight these three that follow to be regarded: the Way, the Water, and the Neighbour. The goodnesse of the way is a great matter, for it both makes the Master haue a delight to goe about it, and it is commodious for carriage, which bringeth great gains, and little charges. Of the commoditie of water who doubteth, without whose vse no man is able to liue: Of a mans neigh-

The first Booke, entreating

bour, he would haue a man haue speciall regard. Hesiodus saith, *πῆμα κακὸς γείτορ*, an euill neighbour is a great mischiefe. I haue knowne diuers, that for the troublesomnesse of their neighbour, haue forsaken good dwellings, and changed gold for copper, because they haue had false knaues to their neighbours, and quarrellers, that suffering their cattell to ranne at large in euery mans ground to spoile their Coyne and their Vines, would also cut downe wood, and take whatsoeuer they find, alwaies byabling about the bounds of their ground, that a man could neuer be in quiet for them: or else haue dwelt by some Caterpillar, Kuffian, or Swath-buckler, that would leaue no kind of mischiefe vndone. Amongst all which commonly there is not so ill a neighbour, as the new vpstart, that takes vpon him the name of a Gentleman, who though you vse him neuer so well, will at one time or other giue you to vnderstand from whence he comes, and make you sing with Claudian.

Aperius nihil est humili cum surgit in altum

A lewder wretch there liues not vnder skie.

Then Clowne that climes from base estate to hie.

As the Proverbe in England is, set a Knane on horseback, and you shall see him shouler a Knight: for an Ape will be an Ape, though you cloath him in purple. Surely M. Porcius would haue a man hume the neighbourhood of such, as the pestilence. I for my part am happy in this point, that I haue no neighbour that I neede to feare.

RIG O. Perhaps they dare not for your authoritie to doe, as otherwise they would.

CONO. But since death and other casualties rids a man of them, the dwelling is not to be left; if it haue other good commodities, except it be places in the borders of sundry Countries that be subiect to great sickneses. Some commend the dwelling that hath faire waies about it, is nere some Riuer or good Market, whereby a man may carrie his Merchandize with lesse charges. The old fellows would neuer haue a man place himselfe nere the high way, for pilfering of such as passe by, and troublesomnesse of guests, as I said befoze in speaking of the placing of an house. In the letting of a Farme, these things are to be obserued that I spake of befoze, in describing of a Bailiffe of Husbandrie and his labour: that you let it to such, whose trauaile and good behauiour.

behaviour you may be assured of, and that you regard more their god ordering of the land then the rent, which is least hurtful, and most gainefull. For whereas the ground is well husbanded, you shall commonly haue gaine, & neuer losse, except by vnrasonablenesse of the weather, which the Ciuill Lawyer sayth, should not be any damage of the Tenant, or the inuasion of the enemy, where the Tenant cannot helpe it. Besides, the Lord must not deale with his Tenant so straightly in euery point, as by law he might, for his rent dayes, bargaines of wood, quit rents, or such, the rigour wherein is more troublesome, then beneficiall: neither ought wee to take euery advantage, for law many times is right plaine wrong: neither must ye be too slacke on the other side, for too much gentlenesse many times makes a man the worse. And therefore it is good if the Farmer be slacke in his payments, to make him to know it: but in no wise to be a raiser or enhaunser of rents, for that discomforts, and many times vndoeth the tenant. Moreover, you must not lightly change the olde Farmer, both because of his deserts, and that hee is better acquainted with the ground then a new. L. Volusius would alwayes say, that hee was in best case for his Lands, that had alwayes his Tenants borne and bredde vp in them, whereby the long familiaritie should make them more louingly to vse themselves: for sure it is an euill vse often to change Tenants, and therefore I doe like well that order, where the land is let for the liues of the Tenant, his wife, and his childe, paying a yerely rent, so that as long as he payes his rent, and keepest the reparations, it shall not be lawfull to deceiue him: for hereby the Tenant shall be prouoked to order the ground with more diligence, to repaire the house, and to looke to it in all points as to his owne, bestowing many times as much as he hath vpon it. This way of letting Land me seemes is best; where the ground is subiect to the Sea or the Riuer, or other danger, that the Tenant be charged with the maintenance of it. And here be sure that you let it rather to one of habilitie, then to an vnrchristie man, that is not able to beare it, whereby you may lose both your Land and your rent. In such place as lies nere the Lord, hee may occupie it by his Wapnisse, or to halwaes: but where it is far off, it is better to let it out for a yerely rent vpon the foresaid couenants. For if you occupie it with your

seruants;

The first Booke, entreating

seruants, they will epyther looke ill to your cattell, or your ground, or suffer things to be stolne, or steale themselves, or make you be at moze charges then needeth, and be carelesse in euery thing. In letting of ground commonly it is coucnanted, that the Tenant shall not let nor sell without leaue of the Lord, and that he shall not bzeake any pasture or meddow land, and what, and how much he shall sowe of euery kinde of graine, how much hee shall haue for Pasture, how much he shall let ste, and how much he shall mend. Here haue you almost as much as I am able to say in husbanding of the ground.

C O N O. I thanke you, you haue greatly delighted me with the describing of your Pasture-ground and Carable.

The end of the first Booke.

The



The second Booke : Of Gardens, Orchards, and Woods.

THRASYBVLVS. MARIVS. IVLIA.



BECAUSE of the aliancs betwixt Hearbes, Trees, and Corne, and because their husbandry is almost one, it is reason that next the first booke, written of Carable ground and Tillage, should follow the description of Orchards, Gardens, and their fruits. Virgill in writing of Husbandry, left this part unwritten of: howbeit, diuers others

both old & new writers haue not without some diligence written of this part, but yet by snatches (as it were) & not througely: whose opinions ioynd with mine owne experience, it seemeth good to me in this booke to declare. And since the vse of Orchards & Gardens is great and ancient, & that Homer writeth, how Laertes the olde man, was wont with his trauaile in his Orchards, to driue from his minde the sorrow hee toke for the absence of his sonne. And Xenophon reporteth, that king Cyrus, as great a prince as he was, would plant with his owne hands, & set trees in his orchards, in such order, as it seemed an earthly paradise. Q. Curtius writeth of Abdolominus that for his great vertue, of a poore gardner, came to be king of the Sidonians. And surely, not vnworthily is this part of husbandry esteemed, seeing it doth not alonely bring great pleasure, but also is greatly profitable for the maintenance of household, and the sparing of charges. in ministering to the husband daily foode, and sufficient sustenance without cost. For when (as Columella saith) in the olde time the people liued more temperately, and the poore at moze libertie fed of flesh & milke, and such things as the ground & foldes yeilded, but in the latter age when ryot and daintines began to come in, and the wealthie sort to esteeme no fare but costly, and farre fetched, not content with meane diet, but coueting such things as were of greatest price,

The vse of Gardens of great anti-quitie.

The second Booke, entreating

price, the poore people as not able to beare the charges, were ban-
 nished from the costlier rates, and driuen to content themselues
 with the basest foode. And hercof sprang at the first the planting
 of Orchards, and making of Gardens, wherewith the poore crea-
 ture that was, might keepe his kitchen, and haue his victuals al-
 wayes at hand, the Orchard and Garden seruing for his Sham-
 bles, with a great deale more commendable and hurtlesse diet.
 Herein were the olde husbonds very carefull, and vsed, alwayes
 to iudge, that where they found the garden out of order, the wife
 of the house (for vnto her belonged the charge therof) was no good
 huswife, for they should be forced to haue their victuals from the
 Shambles or the Market, not making so great account of Col-
 worts then, as they doe now, condemning them for the charges
 that were about them. As for flesh, it was rather lothed then vs-
 ed amongst them. Only Orchards and Gardens did chiefly please
 them, because the fruits that they yeeld, needed no fire for the dress-
 ing of them, but spared wood, being alwayes of themselves ready
 dressed, easie of digestion, and nothing burdensome to the sto-
 mack: and some of them seruing also to powder or preserue with-
 all, as good marchandize at home, as Plinie sayth, not dricing men
 to seeke pepper as farre as Indle. Of Lucrin, & the Mytter not
 regard, as the Poet sayth. And therefore to make them of more
 worthinesse, and that for their common profite, they should not be
 the lesse regarded, there were diuers noble men of the house of
 Valerius, that tooke their surnames of Lettuse, and were not asha-
 med to be named Lettismen. The old people had in great esti-
 mation the Gardens of the daughters of Atlas, and of the kings
 Adonis and Alcinoi, of whom Homer so much speaketh, as also the
 great vaulted Gardens, eether built by Semiramis, or by Cyrus
 the king of Assiria. Epicure is reported to be the first that euer
 deuiled garden in Athens, befoze his time it was not seene, that the
 pleasures of the Countrie were had in the Cittie. Now when
 Thrahybulus traauiling in the affayres of his prince, chanced to
 come to the house of Marius, & carried by him into a Garden that
 he had, which was very beautifull, being led about among the
 sweet smelling flowers, and vnder the pleasant Arbours, what a
 goodly sight (quoth Thrahybulus) is heere: how excellently haue
 you garnished this paradise of yours with all kinde of pleasures:

Pour

An euill
 Garden
 token of
 an ill hus-
 wife.

Or Lettu-
 sins.

Your Barlers, and your banketting houses both within and without, as all bedecked with pictures of beautifull Flowers & Trees, that you may not onely see your eyes with the beholding of the true and liuely Flower, but also delight your selfe with the counterfait in the midst of winter, seeing in the one, the painted flower to contend in beautie with the very flower: in the other, the wonderfull worke of Nature, and in both, the passing goodnes of God, Moreouer, your pleasant Arbours to walke in, whose shadowes keepe off the heate of the sunne, and if it fortune to raine, the cloisters are hard by. But specially this little Riuer, with most cleere water, encompassing the garden, doth wonderfully set it forth, and herewithall the greene and goodly quickset hedges, no chargeable kinde of enclosures, differeth it both from Man & Beast. I speake nothing of the well ordered quarters, whereas the Hearbes and Trees are seuered euery sort in their due place, the Pot-herbes by themselves, the flowers in another place, the Trees & Impes in another quarter, all in iust square and proportion, with Allets and walkes among them. Among these goodly sights, I pray you remember according to your promise (for so the time requireth) to shew mee some part of your great knowledge in garden matters, sith you haue vpon this condition heard me heretofore bragging, or rather wearping you with the declaiming of my poore skil in the tilling of the field.

MARIVS. Your memozie is herein a little too quicke, but what shall I doe? Promise must be kept, and since you will needs force me, you shall heare me babble as well as I can, of my knowledge in Gardening: but not with the like pleasure that I heard you talking of your grayning and your ground.

THRA. Yes truly, with as great pleasure & desire as may be.

MARIVS. Come on then, let vs here sit downe in this Arbour, and we will now and then rise & walke, resting vs as oft as you will: in the meane time Iulia shall make ready our supper. And first, euen as you began with the choosing of a place (meete to set your house vpon, so must I with the choyse of a Plot meete for a Garden. The ordering of Gardens is diuers, for some are made by the Mannor houses, some in the Suburbs, some in the Citie, where soeuer they be, if the place will suffer, they must be made as nere to the house as may be: but so, as they be as far from the
Barnes

The second Booke, entreating

The time
of search-
ing for
water.

Barnes as you can, for the Chaffe or dust blowing into them, and either subiect to the Dounge heape, whereby it may be made rich, or else in some very good ground that hath some small Brooke running by it, or if it haue none such, some Well or Conduit, whereby it may be watered. An excellent plot for the purpose is, that which declineth a little, and hath certaine gutters of water running thzough diuers parts thereof: for gardens must alwaies be to be easily watered, if not with some running streame, some pompe to be made, or kettle Mill, or such like, as may serue the turne, of a natural streame. Columella would haue you make your search for water, when the Sunne is in the latter part of Virgo; which is in September, before his entrance into the Winter Equinoctiall, for then may you best vnderstand the strength or goodnesse of the springs, when after the great burning heat of the Sommer, the ground hath a long while continued without raine. If you cannot thus haue water, you must make some standing pond at the vpper part of the ground, that may receiue & containe such water as falls from aboue, where with yee may water your Garden in the extreame heat of Sommer: but where neither the nature of the soyle, nor conueyance by Conduit or Pumpe, or running streame is to be had, you haue no other helpe but the raine water of winter, which if you also haue not, then must you delue and lay your Garden thze or feure foote deepe: which being so ordered, will well be able to abide what soeuer drought doe happen. This is also to be regarded, that in gardens that are destitute of water, you so order them into seuerall parts, that what part you will occupie in winter, may lie towards the South, & that which shall serue you for Sommer, may lie towards the North. In a Garden, as in the choyle of Cozne ground, you must loke whether the goodnesse of the ground be not hindered by the vnskillfulnesse of him that hath occupied it. You must also make choyle of your waters, of which the best (as Plinie sayth) are the coldest, and such as be swet to drinke: the worst that comes from Ponds, or is brought in by trenches, because they bring with them the seeds of grasse and weeds: but the ground doth most delight in raine water, which killeth worms and baggage that breeds in it: but for some hearbs, salt water is needful, as the Raddish, Bete, Kew, Sauell, to which al salt water they say, is a special helper, making

them both pleasant and fruitfull: to all others, sweet water is only to be vsed. And because I haue begun to entreat of watering, I must giue this note, that the times of watering is not in the heat of the day but early in the morning, & at night, leass the water be heated with the Sunne: onely Walsill you must water at noone, the seed something will come the sooner vp, if they be sprinkled at the first with hot water. You haue here heard, that the first needfull thing for a Garden, is water. The next to that is enclosure, that it be wel enclosed, both from unruly folks & thæues, and likewise from beasts: lest lying in waite for your hearbs and your fruits, they may both bereaue you of your paines, and your pleasure: for if epyther they be bitten with beasts, or too often handled with men, it hindzeth them both of their growth & sèding: and therefore it is of necessittie to haue the Garden well enclosed. Now for enclosures, there are sundry kindes, some making earth in mould doe counterfeit Brickwals: Others make them of lime & stones: some others of stones layd one vpon another in heapes, casting a Ditch for water round about them, which kinde Palladius forbids to follow, because it will draw out the moisture from the Garden, except it be in a marish ground. Other make their fence with the seedes and sets of Thorne: some make them of maddè wallcs, covered with straw or heath. Varro maketh mention of foure kindes of enclosure: the first naturall, the second wilde, the third souldierly, the fourth, of carpenters worke. The first & naturall is the quickset hedge, being set of yong thornes, which once well growen, regardeth neither fire nor other hurt. The second is the common hedge made of dead wood, well staked and thicke plashed, or railde. The third the souldiours fortifying, is a deepe ditch with a rampier: but the ditch must be so made, as it may receiue all the water that comes from aboue, or falls into it, wherein the bamure must be so steepe, that it may not easily be climed. This kinde of fence is to be made, where the ground lies nere the hye way, or butts vpon the Riuer, of which sort I shall haue occasion to speake more hereafter. The fourth fence made by the Carpenter or by the Mason, is commonly known: whereof there is foure sorts, either of Stones, of bricks, or Turfe, and earth, & little stones framed in moule. Columella following the ancientest authozs, pferreth the quickset hedge before the dead,

The time
of water-
ring of
Gardens.

Enclosing
of Gar-
dens.

The making of a quick-set hedge.

because it is lesse chargeable, and also endureth the longer continuing a long time: which hedge of yong thornes, he teacheth to make in this sort. The place that you determine to enclose, must after the beginning of September, when the ground hath bene well soaked with raine, be trenched about with two furrowes, a yard distant one from the other; the depth & breadth of euey one of them must be two foot, which you must suffer to lye emptie all winter, prouiding in the meane time the seedes that you meane to sowe in them, which must be the berries of sharpe thornes, briars, holly, and wilde Eglantine, which the Greekes call dog brier. The berries of these you must gather as ripe as you may, and mingle them with the flower of Beale of tares, which when it is sprinkled with water, must be put vpon old ropes of lins, or any other ropes, the ropes being thus handled and dried, must be layd vp in some boarded floore. Afterward when winter is done, within forty dayes after, about the comming of the Swallow, if there be any water remaining in the Furrowes, it must be let out, & the mellowed earth, which was cast out of the furrowes in the ende of Summer, must now be cast in againe, till you haue filled them vp to the midd: then must you handsomely vnfolde the ropes, and lay them in length through both the furrowes, and so couer them, taking good heed that you throw not too much earth vpon them so: hindering the spring, which common'y bleseth to appeare within thirtie dayes after, and when they be growne to be of some height, they must be made to encline to the space betwixt the two furrowes: in which space you must haue a little walled hedge, to teach the springs of other furrowes to climbe by. which will be a solly stay and a comfort to them. But I haue another and a moze neuer and better way of making of them, which I first practising in this Countrie, diuers others haue followed. I also do make a certaine Ditch, & gathering in the wood, the yong springs of thornes, cutting off their tops, I set them on the banke of the Ditch, so that they stand halfe a foot out of the ground, plucking vp all the weeds (specially the first Sommer) that grow about them and sucke away the iuyce that comforts the set. The rootes being this rid, I couer all the earth about them with straw, whereby both the death of the night is let into the rootes, and the pooze plant is defended from the burning of the Sunne. The yere after, I make

Another newer and better way of making a quick-set hedge.

a little slender raille of plants, whercunto I lay by the springs, weaving them in such sort as I will have them to grow, which I yearly make higher, according to the height that I would have the Hedge to spring. Eight, or at the uttermost nine foote, is a sufficient height, and whatsoever spring about, must be plashed of one side or the other, to make the fence the stronger. When I have thus done, I mat it thicker and thicker every yeere, filling by the places where I see it thinne, with such bowes as I see grow out of order: and thus is it wouen so thicke with yeere by bindings, that not so much as a small bird is able to pass thorough it, nor any man to looke through it. When it is thicke enough and bigge enough, the superfluous springs must every yeere be cut. This hedge can neuer be destroyed, except it be plucked by by the rootes: neither feareth it the hurt of fire, but will growe the better for it. And this is my way of enclosing a Garden, as the pleasantest, most profitable, and of least charges.

THRA. There is another way of making of a quick-set Hedge, Another sort of hedging. which our Hedgers in the Countrey doe vse, which is something the stronger. For setting the young Sets, as you have said befoze, when they be growne to some greatnesse, they cut the Thorne nere to the ground, and being halfe cut and broken a sunder, they bowe it along the Hedge, and plash it. From these cuts spring by new plants, which will as they growe to any highnesse they cut them, and plash them againe: so doing continually, till the Hedge be come to his full height. This way the Hedge is made so strong, that neither Hogge nor other beast, is able to breake through it: but the other is a great deale more pleasant to the eye. But if I haue not Sets enough to serue, may I make an Impe Garden of their seede?

MARIVS. Vea very well. Make your Thorne Garden or Hoze plot in this sort. Take your Berries or Stones, and mingle them with earth, lay them by for the first yeere in some place mate for them, the next yeere sowe them as thicke as you can, and yeere shall within a little time haue a whole Wood of thornes.

THRA. You haue now spoken of Water and enclosure, two principall points in a Garden: It now remaineth to speake of the ground mate for a Garden, and the order of dressing it.

MARIVS. Of the sundry sorts of ground, and of the discerning

of them, because you in your describing of Cozne ground before have sufficiently spoken, I do not think it needfull for me to repeat it. Againe, it is enough to me to adde onely this, that the ground ought not to be too rich, nor too leane, but fat and mellow, which bringeth forth a small kinde of Grasse like haire: such ground requires least labour, the stiffe and the rich ground asketh greater paines about it, but doth recompence it againe with his fruitfulnessse. The stiffe, leane, and cold ground, is not to be medled with, as Columella writeth in appointing good ground for Gardens,

The ground that giues the ripe and mellowed mould,
 And doth in working crumble like the sands:
 That of his owne good nature yeeldeth manifold,
 Where Walwoort with his purple Berrie stands.
 For neither doth the ground that still is dry,
 Content my minde, nor yet the watrie soyle:
 Whereas the Frogge continually doth cry,
 While in the stinking Lakes he still doth moile.
 I like the land that of itselfe doth yeeld,
 The mighty Elme that branches broad doth beare,
 And round about with Trees bedecks the field
 With Trees, that wilde beares Apple, Plumme, and Pear,
 But will no Bearefoot breed, nor stinking Gumme,
 Nor Yewe, nor Plants, whence deadly poysons come.

And thus much of the Garden ground, which as I said, is wa-
 tred, or may be watred, and is enclosed either with a wall, a hedge,
 or some other safe enclosure. After this, it is needfull it lie well to
 the Sunne, and warme: for in ground that is very colde, the
 warmth of the Sunne will not much auaille it. And contrary, if it
 be a hot burning sand, the benefit of the Heauens can little helpe
 it. You must yet looke, that it lie not subiect to ill windes, that are
 dry and scorching, and bring frosts and milks. But now to the or-
 dering of your Garden. First, you must be sure that the ground
 which you meane to sow in the Spring, be well digged in the fall
 of the lease, about the Kalends of October: and that which you
 garden in the fall of the lease, must be digged in May, that either
 by the colde of Winter, or the heate of Summer, both the clod
 may be mellowed, and the rotes of the weedes destroyed, nor
 much before this time must you dung it. And when the time of
 sowing

What to
 be confi-
 dered in
 the choise
 of garden
 ground.
 Ayre.
 Windes.

The orde-
 ring of
 Gardens.

sowing is at hand a five dayes before, the wēdes must be got out, and the dung layed on, and so often and diligently must it be digged, as the ground may be thzoughly medled with the mould.

Therefore the parts of the Gardens must be so ordered, as that which you meane to sowe in the end of Summer, may be digged in the Spring: and the part that you will sowe in the Spring, must be digged in the end of Summer: so shall both your fallowes be seasoned by the benefit of the colde and the Sunne. The Beds; beds are to be made narrow and long, as six fote in length, and sixe in breadth, that they may be the easier wēded: they must lie in wet and watric ground two foot high, in dry ground a fote is sufficient. If your beds lye so dry, as they will suffer no water to tarry vpon them, you must make the spaces betwixt higher, that the water may be forced to lie and auoide when you will. Of Of dig-
ging and
dunging
of Gar-
dens. the kindes & sorts of dunging being sufficiently entreated of by you, I will say nothing: onely, adding this that the dung of Asses is the best, because it breedeth fewest wēdes: the next is Castells dung, and Shēpes dung, if it haue lien a yēre. The ground as I said which we meane to sowe in the Spring, we must after the end of Summer let lye fallow, to be seasoned with the frost and the cold: for as the heate of Summer, so doth the cold of the Winter bake and season the ground. When winter is done, then must we begin to dung it: and about the fourteenth or fiftenth of January, we must dig it againe, deuiding it in quarters and beds. First must the wēdes be plucked vp, and surffes of bartaine ground must be layd in the Alleyes, which being well beaten with Beates, and so trod vpon, that the grasse be woꝛne away, so that it scarce appeare, it will after spring vp as fine as little hayze, and yēld a pleasant sight to the eye, which will be very beautifull. When you haue seuered your flowres by themselues, your Phisicke hearbs by themselues, and your Pot-hearbs and Sallets in another place: the beds and the borders must be so cast, as the Wēders hands may reach to the midst of them, so shall they not neede in their labour to tread vpon the beddes, nor to hurt the hearbs. And this I thinke sufficient for the preparing of your ground before the sowing. Now will I speake of sowing, and what shall be sowed in euery season. To speake of all sorts of Of Sow-
ing. Hearbs and Flowres, were an endlesse labour, onely of those that

The second Booke, entreating

Three seasons to
sow in.

are most needfull, I meane to entreat. And first of hearbs, some are for the Pot, some for the light, some for pleasure and sweet saour, and some for Phisicke. And againe, some are for Winter, some for Summer, and some betwixt both. The first time of sowing after Winter, is the month of March, April, and May, wherein we vse to sow Colwortes, Radish, Rape, and after Beets, Lettuse, Dozel, Mustard-seede, Coziander, Dill, and Garden Cresses. The second season for sowing, is in the beginning of October, wherein they set Beets, and sow Smallage in Nigella and Arreche. The third season, which they call the Summer season, in some place the Gardeners begonne in January, wherein they set Cucumbers, Gourds, Spinnach, Basill, Purslaine, and Sauerie. Many things may be sowed betwixt these seasons, and yet doe very well. All Garden hearbs are commonly sowed befoze the tenth of June, such things as you would not haue seed, you may sow after this time.

Some things are sowed onely two times a yere, in the Spring, and in the end of Summer. Others againe at sundry times, as Lettuse, Colwortes, Rocket, Radish, Cresses, Coziander, Chervil, and Dill. These are sowed about March, or about September, and Columella saith, doe come either of the seede, or of the slip: some of the roote, some of the stalk, some of the leafe, some of the Clot, some of the Head, some of both: others of the Barke, others of the Pith, some both of the seede and the slippe, as Kew, wilde Paricrum, and Basill, this they cut off, when it comes to be a handfull high: Others growe both of the seade and the roote, as Onions, Garliche, and such like. And although all things will grow of their seedes, yet this they say, Kew will not doe: for it very seldome springs, therefore they rather set the slips. These that are set of the roote, doe commonly last longer, and branch better, putting forth young slipes from his sides, as the Onion and Cich. The stalk being cut, they all doe spring againe for the most part, except such as haue speciall stalkes, called by Theophrastus *ἀποφυλαγ*, that is, such as when the stalk is cut grow no more: Gasa interprets it *Secaulia*. The Rape and the Radish, their leaues being pulled away and covered with earth, doe grow and continue till Summer. The fruits of some is in the earth, some without, and some both within and without, some lie and grow, as the Cucumber and the Gourd, and sometimes hang, though of greater weight

Of seedes.

weight by much then the fruits of Trees: some requires Staves and helpes to clime by, as Hops, Lupines, and Pease: some seede groweth better, the newer they be, as Léeses, Nigeba Romana, Cucumbers, and Gourdes, and therefore some vse to scrape their Cucumbers, in milke or water, to cause them to grow the speedier. On the other side, of oide seede better groweth the Beete, Garden Cresses, Penitential, great Parierum, and Coziander. In the Beete this is onely obserued, that the seede commeth not all vp in one yere, but part the second yere, and some the third: and therefore of a great deale of seed, springeth but a little. Touching seed, this is to be well séene to, that they be not too old and dry, that they be not mingled, or taken one for another: old seed in some is of such force, as it changeth the nature: for of old Colwort seede springeth the Rape, and likewise of Rape seede Colworts. Also that yee gather not your seedes too soone, nor too late. The very time, as Theophrastus writeth, is at the spring, the fall of the leafe, and the rising of the Dog: but not in all places and kindes alike.

Of Seeds, the soonest that spring are these Basil, Arach, Pauen, What Seed Rocket, that commeth vp the third day after the sowing, Lettuse spring the fourth day, the Cucumber and the Gourd, the fift day, Pars loone, and flin, longer ere it come, Dill, the fourth day, Cresses & Mustard, which seede the fift day, Beetes in summer the sixt day, in winter the slowly. tenth or the twelfth, Léeses the xix. day, sometime the xx. Coziander later: which if it be new, (except it be thrust together) it groweth not at all. Penitential and great Parierum, come vp after xxx. dayes. Parsly, is of all other the longest before it come vp, appearing the fortieth day after, or many times the fiftieth.

You must also consider, that the weather in sowing is of great force: The wea- for the season being faire & warme, they come vp the sooner. Some ther for sorts seed one yere, & neuer after come vp: some againe continue, Sowing. as Parsly, Smalledge, Léeses, Pigella, that being once solued, come vp euery yere. Such as continue but a yere, presently vpon their sowing die: other spring againe after the losse of their stake, as Léeses, Pigella, Onions, and Garlick: and commonly all such as put out from the side: and all these require dunging & watering.

In sowing beside some think, you must haue regard to the Moone, The and to sow and set in the encrease, and not in the wane. Some Moone. againe thinke it best from that she is foure dayes oid, till she bee

eightens:

eightene: some after the third, others from the tenth, till the twentieth: and best (as they all suppose) the Moone being a loft, and not set.

T H R A. But now I pray you tell vs something of the ordering of the best Garden hearbs you haue.

M A R I V S. Some deuide their Gardening time by the Moneths, as they doe their other husbandry.

T H R A. I care not whether by Moneths or other wayes, but I would sayne knowe the ordering of your Garden here, for I knowe in hot Countreies they Garden all the Winter long, but I am altogether for our Country, whose order we must here follow.

M A R I V S. In these parts they commonly begin their Gardening (if the weather be faire and seasonable) in the end of February. At this time therefore the Garden being dunged, digged, raked, and cleansed, they vse to plant Sperage, and Kewe.

T H R A. I pray you begin with Asparagus, or Sperage, and the other Pot-hearbs, euery one in his order: and afterward with Flowres and Physicke hearbs.

M A R I V S. Asparagus was wont to grow wilde, but now is brought into the Garden; it is called in Graeke, ἀσπαραγος, in Italian, Spanish and French, it is almost all one; the one call it Asparago, the other Asperge, the Dutchmen call it Sperages and Spiritus, because it comes by of it selfe: for the Garden Sperage they were not acquainted with. It is planted in two sorts, either of the seede, or the roote: they take of the seede as much as you may take by with thre fingers, and bestowing it in little holes, euery two or thre seedes halfe a foote asunder: they set them in rich ground, in February, and couer the ground with dung. The weedes that grow, must bee well plucked away, after the fortieth day they come by as it were to one roote, and tangled together: the rootes haue sundry strong thredes, which they call the Sponge. In ground that is drie, the seedes are to be set deepe, and well tempered with dung. In wet grounds, on the other side, they are to be set shallow in the top of borders, lest the moisture destroy them. The first yere you must brake off the stalks that grow: for if you plucke them by by the rootes, the whole sets will foliow, which are to be preserved for two yere with dunging and weeding. All the yeres after, you must not gather them in
the.

the stalks, but pull them from the root, that the roots being opened, may the better spring, which except you doe, you hurt the Spring. Him that you meane to keepe for seed, you must in no wise meddle withall, after, burne by the bushes, and in Winter dung wall the rootes with dung and ashes, they are planted also of the rootes, which after two yeres you must remoue into a warme and well dunged ground. The trenches where you meane to set them, must stand a foot a sunder, and a shaft-man in depth, wherein you must so lay your Sponges (as being couered) they may best grow: but in the Spring befoze they come vp, you must loose the earth with a little Forks, to cause them the better to spring, and to make the roots the greater. Cato would haue you to rake them, but so, as you hurt not the roots, and after to pull the plant from the root: For if you other wise breake it, the root will die, & come to nothing. But you may so long crop it, till you see it begin to grow to seede: in which yere for the Winter time, you must according to Catoes minde, couer it with straw, or such like, least the cold doe kill them, and in the Spring open it againe, and dung it well. Some thinke, that the first yere it is needlesse to doe any thing to the plant, but onely to weede it. From the roots, which they call the Sponges, there springeth first certaine buds with crumpled knops, very good and pleasant for Sallets: which if you suffer to grow, it straightway busheth forth with bzanches like Fennel, and at length grow to be prickly: after it hath flowered, it beareth a Berry, first greene, and when it is ripe red. If you would haue Sallets of Alparagus all the yere through: when you haue gathered the Berries, open the rootes that runne aloft by the ground with digging, and you shal haue the roots send forth new buds out of hand. It is thought, that if you breake to powder the hozne of a Ham, and sowe it, watering it well, it will come to be good Sperage. In the Spring time they make a very good Sallet, being sodde in water, or fatte Broath, till they be tender: for if you seeth them too much, they will wasse away. When they be sod, they dressle them with Vinegar, Oyle, Pepper and Salt, and so eate them: or as my friend William Prat, very skillfull in these matters, telleth me. they cut them in small peeces like Dice, and after they haue parboiled them, butter them with sweet Butter, a little Vinegar and Pepper.

The second Booke, entreating

THRA. You haue very well shewed me the ordering of Asparagus: I pray you goe forward to Kewe.

Rew.

MARIVS. Kew, which the Greekes call $\pi\acute{\iota}\lambda\alpha\gamma\iota\omicron\nu$, the Latines Rutam, the Italians Rutache, the Spaniards Ruda, the Frenchmen Rude de jardin, is planted at the end of February, or in March, prospering best in drie and Sunnie grounds, it abhorreth both water and dung, which all other hearbs most delight in, it most delighteth in ashes: and where all other plants will spring of the seede, this they say will neuer doe it. The branches being slipped off, and set in the spring, will very well grow, but if you raioue the old root, it dieth: it delighteth in the Shaddew of the Figge tree, and being stolne (as they say) it prospereth the better: it is sowed with cursing, as Cummin, and diuers other, and cannot abide the presence of an vncleane woman.

THRA. I see good Lettuse here, I pray you how doe you order it?

MARIVS. Lettuse is called in Dutch Lattich, in French Laictue, in Greeke $\sigma\epsilon\upsilon\delta\alpha\gamma$, in Italian LaCucca, and so in Latine, in Spanish Lechugas, whereof besides the wilde, there are thre kindes, one crumpled, which Columella calleth Cæcilia, and Spanish Lettuse, of the Countries where it most groweth, and is greatest esteemed, in Dutch called Krauser Lattich, in French Crespue, the other Cabbedgs Lettuse, in Dutch Knopf Lettice, in French Laictue testue, of Plinie called Laconica, and Sessilis, because it groweth round like an head, or an Apple. The third sort is called Rotunda, because it groweth in compasse vpon the ground.

THRA. But how come you to haue so good Lettuse, and how doe you order them?

Lettuse.

MARIVS. At the end of February, or in the beginning of March, we vse to sow it, that it may be remoued about Aprill or May. In hot Countries as Palladius telleth, they sow it in Ianuarie, or in December, with intent to remoue it in February: but you may sow it at any time of the yere, so the ground be good, well dunged, and watred. When you remoue them, the rootes must be pared and rubbed ouer with dung, and such as be already planted, their rootes must be pared and dunged: they loue a good ground, moist and well dunged, they spread the better (if you set by them the Kape) or when they begin to stalk, the stalk being tenderly clouen,

clouen, you lay vpon it a clod or a Tilehard: they will be white, if you sprinkle them often with sand, or tie sand within the leaues, and both tender and white you shall haue them. If two daies befoze they be gathered, their tops be tyed vp, they wil be round and Cabbedged. If the roote being remoued when it is growne a hand broad in height, be pared and lincered with fresh Cow dung, and earth cast about it, be well watered, and when it groweth high, the top be cut, a potthard laid vpon it, the sweeter also they will be: the moze you restcaine the stalke from shooting vp, which must as I said, be kept downe with some stone or waight, that they may spread the better. If the Lettuse chaunce by reason of the badnesse of the soyle, the seede, or the season, to ware hard, the remouing of it will bring it againe to his tendernes: it will haue sundry and diuers tastes, if taking a Treddle of Shæpe, or Goates dung, and hollowing it cunningly with an Awole or a Bodkin, you thrust into it the seede of Lettuse, Cresses, Basil, Rocket, Smallage, Percely, and Raddish, and after wrapping it in dung, you put it into very good ground & water it well. The Percely, or Smallage goeth to roote, the others grow in height, keeping still the tast of euery one. Constantine affirmeth Lettuse to be a moyst and cold hearbe, a quencher of thirst, and causer of sleepe: and that being boyled, it nourissheth most, and abateth Letcherie, for which the Pythagorians call it Eunuchion. Galen himselfe the Prince of Physitions doth greatly commend it, who in his youth did alwaies vse to eate it raw, and after in his elder yeeres boyled, whereby he kept his body in good temperature. Endiue, in Latine, Intubum, or Intubus, not vnlike to Lettuse, some call it Garden Succorie, the Dutchmen, and comimon sort, Endiuam, the Italians and the French, Cicoriam, the Spaniards, Endibia: it is sowne as other Garden hearbs in March, it loueth moysture and good earth, but you must make your beds when you sow it the flatter, lest the earth falling away, the rootes be bared: when it hath put forth leaues, you must remoue it into well dunged ground: that which is sowne befoze the Ralends of July, doth come to seede: but that which is sowne after, seedeth not. You must sow that which you would haue to serue you in winter, in October, in warme stonie places for Sallets in winter: they vse at this day when his leaues be out, to sold them

The second Booke, entreating

by together, and tie them round in the top with some small thing, covering them with some little earthen vessel, the rootes still remaining to nourish them withall: thus doing, they will grow to be white and tender, and to lose a great part of their bitterness. It is said, that they will be white, if they be sprinkled a few daies abroad, and lying upon sand, be washed with the raine: And thus is Endiue with his increase preserved all Winter. Some there be, that contenting themselves with lesse charges and labour, doe only cover them with earth, others againe with straw: this order of wintering of it, is now in every place growne to be common.

Colwoorts.

THRA. I see also in this pleasant Garden Colwoorts, that we Country folkes be so well acquainted with.

MARIVS. It is meete my Garden should not want that, which as you know Cato preferreth befoze all other hearbes, in describing the wonderfull properties and uses thereof: and this place I onely appoint for such common Pot-herbes, as Colwoorts, Bêtes, Endiue, Onions, Rapes, Patiences, Leekes, Carrets, Raddish, Garlick, and Parsneps: the worthier sort I place by themselves, and as the nature of every one requireth. Colwoorts is commonly called in Latine Brassica, or Caulis, in Græke *νεγυση*, in French Choux. in Italian Caule, in Spanissh Verza, in Dutch Koil. The olde wyters made diuers sorts of it, as at this day there be. One sort with great and broad leaues, a big stalk, and very fruitfull. This sort is commonly knowne, which being the pleasanter in Winter, when it is bitten with the frosts, is sod with Baken, and used in Porridge. The tender part of the top being a little boyled, is served for Sallets, dressed with oyle and salt. The second sort with the crumpled leafe, of the resemblance that it hath to Smalage, is called *delinocis* or *Apiaria*, of the common people crumpled Coll, or wrinkled Coll. The third sort which is properly called Crambe, hath a smaller stalk and leafe, smooth, tender, and not very full of iuyce. The fourth sort is the great Cabbage, with broad leaues and a great head, called in Dutch Rappes, in French *Cheuz Cabuz* of the olde wyters *Tri-tiana Brassica*, and this kinde is onely most set by. In Germante there is one kinde of them that they call *Lumbardey Colwoort*, or *Sauoy Colwoort*, sweeter then the other, and not able to endure the Winter: and another with very broad leaues crumpled, and
full

full of wrinkles, but a great deale blacker, which the Italians call Nigrecaules, and the Latines Nigra Brassica, of the number of those that they call commonly red Coll, of the olde Writers Marucina Brassica. There are besides other sorts, taking their names of the Countrey where they grow, as Aricina and Cumana. The best time for setting and sowing of Collworts, is after the Ides of Aprill. In cold and raynte Countries, the oftner it is dunged and raked, the better a great deale will the Collworts be: some vse to sowe them about the Kalends of March, but the chiefest of it goeth out in lease, and when it is once cut, maketh no good stalke for the Winter after: yet may you twise remoue your greatest Coll, and if you so doe, you shall haue both more seed, and greater yeild: for it so aboundeth with seede, as it is sowed with no lesse aduantage then Rape seede. For the making of oyle, Collworts may be solwen all the yere long, but chiefly in March after it is solwed, it appeareth within ten dayes, except your seedes be old and dry, for old seede will grow to Rapes, as old Rape seede will to Collworts. Some say it prospereth best in salt ground, and therefore they vse to cast vpon the ground Saltpeter or ashes, which also destroyeth the Caterpillar: it is remoued in June, chiefly when it hath put forth sixe leaues, and that when the weather is raynte, so that you couer the roote before with a little fresh dung, and wrap it in Sea-worde, and so set it. More diligence is to be vsed about the Cabbedge: it must be solwen in March in the full of the Moone, that it may remaine in the ground two Moneths, and in May you must take them vp, and set them againe two foote asunder. The ground must be well digged where you set them, and as fast as they grow, the earth must be raised about them: so that there appeare no more than the very tops of them: for to cause them to grow faire and great: you must as oft as you remoue them, banke them vp with earth about them, that nothing but the leaues appeare. And thus you must often doe to all the kindes of them, the hoare frosts make them haue the greater swētnesse. The Vineyards (they say) where Collworts grow, doe yeild the worse Wines, and the Coll corrupteth the Wine.

THRA. I pray you procéde with the rest of these pot-herbs.

MARIVS. You see hereby Spinage, so termed (as you Spinage may know) of the prickly seedes, called in Latine Spinacia, and

such.

euē so in Italian, Spanish, French, and Dutch: it is sowne as those befoze, in March, April, and so till September: if it may be well watred, it commeth vp in seauen dayes after the sowing, you shall not neede to remouē it. The sēde must presently after the sowing be couered, and afterward well wēded: it refuseth no kinde of ground, but prospereth in euery place: you must often cut it, so; it continually groweth, it is to be boiled without any water, where in the boyling it doth yēld great store of iuyce, and contenting it selfe with his owne liquour, it requirēth none other. Afterward, being beaten and stirred with the Ladle, till the clamminesses be gone: it is made vp in little balles, the iuyce strained out, and boyled vpon a Chalyndish with Oyle or Butter, some adde therunto Aergius, or the iuyce of lowze Grapes, to make the taste more tart. I shew you in order as you see, all my Kitchen hearbs: now followeth Sorrell, called in Latine, Acetosa, in Italian likewise, in Spanish, Romaza, in French, Oxella, in Dutch, Surick, of the sowzenes thereof. There are sundry sorts of it: we haue at this day two kinds, the garden Sorrell & the wilde, which are pleasant both in broth & Sallets, and of this hearbe, the wilde sorts are both lowze in taste, and smaller in leafe: it is sowed as all other pot-herbs are, and it groweth of it selfe in Meddowes and Gardens. Cummin and Coriander require wel ordred ground: they are sowed in the spring, and must be well wēded. Cummin is called in Latine, Cuminum, and almost like in all other Languages: it is sowed best (as they thinke) with cursing and excretion, that it may prosper the better. Coriander is called in Latine Coriandrum, and is almost by the same name in al other tongues: it doth best prosper when it is sowed of sēde that is oldest. Smalledge and Parsly, called in Latine, Apium Petroselinum, and Apium horrense, in Italian, Apto domestico, and Petrosello, in Spanish, Peterillie, or Peterlin: it is sowed at the Aequinoctiall, in the spring time, the sēd beaten a little, and made vp in round pellets: we call it Aequinoctiall when the night and the dayes are of equall length ouer all the world: that is, when the Sunne, the Captaine and Authour of the other lights, the very soule of the world, doth enter into the signes of Aries and Libra. It is thought to prosper the better the older the sēde is, & to spring the sooner: it commeth vp the fiftieth day, or at the soonest the fortieth day after

Sorrell.

Cummin
and
Coriander

Smalledge
or Parsley.

after

after it is sowne : when it is once sowne, it abideth a long time, it reioyrceth in water or wet. Fenell, in Italian Fenochio, in Fenell. Spanish Hinozo, in French Fenail, in Dutch Fenchel, is sowd in the beginning of the Spring, in hot sunny places, stony ground, or any ground: being once sowne, it springeth euery yere. Annise, Annise. in Latine Anisum, so knowne in most tongues, as Cummin and Coriander : requireth a ground well ordred and dressed. Dyll, in Latine Anethum, in French and Italian almost so, in Spanish Eneldo, in Dutch Dyll, endureth and abideth all kinde of weathers, but delights most in warme ground : if it be not well watered, it must be sowd thinner. Some neuer couer the seedes when they sow them, supposing that no Bird will meddle with it : it commeth vp also of it selfe as Fennell doth. Cheruill, in Latine Cerofolium, in Dutch Kerbell, in Italian Gingidia, in French Cerfueil, desireth a good ground, moyst, and well dunged: it is sowd with the rest in cold places. In this same Moneth they also sow Beetes, though you may sow them when you will at any other time of the yere as Spinage, it is a common Countrey Hearbe : they call it in Italian Beicola, in Spanish Acelga, in Dutch Beecr, or Mangelt. No Garden hearbe hath greater leaues, so that with due ording, it groweth like a young tree. It is called Bera, because when it seedeth, it is (as Columella affirmeth) to the likenesse of the Greeke letter β . There be two sorts of them, the white and the blacke, the ording of them is after one sort : it is sowd as Colwortes, Sorrell, and Raddish are, in March, April, or May. Some thinke the best time for sowing it is while the Pomegranate doth blowe : it may be sowd neuerthelesse as Lettuce, Cols, and diuers others, at any time of the Summer. The seede, the older it is, the better it is to be sowne, as are the seedes of Spinage, Parsley, Garden Cresses, Sauerie, wilde Marierum, and Coriander, though in all other the newest be best. It commeth vp in Summer the sixt day, in winter the tenth after the sowing : it loueth a moyst, a rich, and a mellow ground: you may remoue it when it hath put forth five leaues, if your ground like well to be watered: if it be drie ground, it must be set in the end of the Summer, as I haue said of Colwortes, though it make no great matter at what other time you doe it. When you remoue it, you must rubbe ouer the roote with new dung. This is proper

The second Booke, entreating

Garden
Cresses.

prosper to the Rate, that his seede come not all by together, but some the yere after, some the third yere: and therefore of a great deale of seede, there is at the first but a little shew, it groweth the broader and the whiter, if when it is something growne, you lay upon it Tile Stones, or such like, to cause it to spread, as I spake before of Lettuse. Garden Cresses, in Italian *Nalluccio*, & *Agrieto*, in Spanish *Mestuerzo*, in French *Cresses de garden*, in Dutch *Kerls*, are sowed both in the Spring, and at the Fall of the lease, it commeth by the first day after it is sowne, and drinketh away the moisture from such hearbs as grow nere him: mingled with other hearbs, he careth not what weather come, and therefore prospereth both as well in Winter as in Summer: if it be sowne with Lettuse, it commeth by exceedingly, it delighteth in moisture, which if it want, it will doe well enough: in watry places it groweth of his owne accord: as about *Padelbor*, a towne in *Westphalia*, it groweth in great abundance in the Winter, and therefore is called of some *Water Cresses*: it was called in the old time *Silimbrium*. The branches when they were old, are netted together with white hayze rings. Garden Poppy, called in Latine *Paupauer sativum*, is thought best to grow where olde stalks have bene burnt: it is sowed in warme places, with other hot hearbs. Mustard-seede, in Latine *Sinapi*, in Dutch *Senecf*, in Italian *Senape*, in Spanish *Molnaza*, in French *Senecue*, there are two kindes, white and blacke: it is best to be sowed in the end of Summer, and againe in March. Where it is once sowne, it is hard to ridde the ground of it againe, because the seede doth still grow as it falleth. It loveth to grow upon dung-hills, and cast banks.

Garden
POPPY.

Mustard-
seede.

THRA. I see you have very fayze Raddishes here.

Raddish.

MARIVS. Nothing so faire as I have had them, for where as they delight in the Sunne, & in warme ground, my Gardners have here set them in the shadow. The order of them is to be set in very good ground, and lying upon the Sunne: some say, it doth not greatly care for dung, so it may have chaffe strawed upon it: when it is come to some growth, they must be covered with earth, for if it flourish once above the ground, the rootes will neuer be good, but hard and full of pith. It is called Raddish, because it exceedeth all other rootes in greatnesse. Plinie writeth, that he saw

also at Erford in Germanie, Raddish as bigge as the body of an Infant. It is sowed twice in the yere, in February or March, the yone being in the wane, lest it grow too much in leaues, foure fingers distant one from the other: and againe in August, which is the best season for them. Those that you set after the tenth of June, will neuer see, the like is to be obserued in all other seeds: it cometh by commonly the third day after it is sowed: in hot and Southerly Countries, the weather being faire, it groweth sone to stalke: and quickly seedes. The leaues as they grow, must still be trampled downe and troden vpon, whereby the roote shall grow the greater: otherwise it flowreth with leaues and giueth encrease to the leafe, and not to the roote: the lesse and the smother the leafe is, the milder and the sweeter is the roote: colde as some say, doth further the goodnesse of them, they say they will be very pleasant, if the seede be steeped in Decoth, or in the iuyce of Raisins: they ware sweet with colde as the Rape doth, and their bitterness is taken away with vaine, and therefore some would haue Raddishes watred & nourished with salt waters: being sodden they come to be very sweet, and serue the turne of Rapes: giuen fasting, they prouoke vomite, they are hurtfull to the veines and to the teeth. Raddish eaten at first, is a good preseruatiue against poyson: eaten befoze meate, it breaketh winde, and prouoketh vaine: & after meate it loseth the belly, it is called in Latine Raphanus, in Italian Raphano, in Spanish Rauano, in French Raue, in Dutch Retich.

T H R A. There is another kinde of them, that the Dutchmen call Merretich; I take it to be that which the Romanes called Armaracia; called commonly in Italy Ramaracia, the first letter misplaced.

M A R I V S. You say well, but this is moze full of braunches, greater in leaues, thinne in body: the leaues are not unlike to the former Raddish, but that they are a little sharper and longer, and the roote slenderer; and therefore there are some that denie it to be Armaracia: but here let the Philosophers contend. Theophrastus maketh mention of sundry sorts of Raddish: This kind of Raddish hath a wonderfull biting taste, a great deale moze then Mustard seed, and fetcheth teares from the eyes of them that eate it: it is set

and

The second Booke, entreating

and planted in this sort: The roote is cut in a great number of piéces, whereof euery piéce prospereth: for if you plucke by this kinde of Raddish by the rootes you may cut off a good quantitie of the roote, and deuiding them into small piéces, setting the elde roote againe by himselfe, and they will all grow and prosper very well.

T H R A. Peas: haue you gotten the Rape? Hitherto I thought hee had onely belonged vnto vs, for we vse to sow them after the Summe hath béene at the highest, and immediately after our other Corne, for the sustentance both of man and beast.

Rapes.

M A R I V S. You doe well, and we sow it now in May, and in watry ground sooner, and in some places in July. There are diuers sorts of them. Some of them round, some grow all in length, and are most pleasant in taste, as at Bingx, and in the Country of Bavar. Some againe of the quantitie of a mans head, and of a hundred pound weight: but the smallest sort is the sweetest. There is another kind of Rape that they vse to sow, which carrieth his seede in little Cods, & is chiefly planted in Germanie for to make oyle of, the which you, the other day, spake of, it is called in Græke *γολδατες*, in French Raue, in Italian Rapo, in Spanish Nabo, in

The little Rape.

Dutch Ruben. There is also another wilde kinde called Rapunculus, that groweth halfo a yard high, full of seéd, and tender topped. This they gather in the Spring time, before the stalk be sprung vp, & pulling it vp by the rootes, do vse it in Sallets, supposing it to be a wilde kinde of Rape. The Nauens also called

Nauens.

in Græke *γολβυλις*, in Latine Napus, in French Nauer, in Italian Napo, in Spanish Nábicas, in Dutch Stockruben, may be counted in the number of Rapes, for Rapes in some ground change into Nauens, & in some ground, Nauens into Rapes. These also loue to grow in a well watred, mellow, and a rich ground: though such as grow in sandie and barren ground, proue often the sweetest in eating. They vse to sowe them in March, and in some places before, as also in August. Parsneppe in Græke *καρδαμυς* in Latin Pastinaca. in other tongues almost as in Latine, is very pleasant to be eaten, and requirerth a fat and rich ground, and deepe digged, whereby the roote may haue roome enough to grow in: it is sowd and set in the spring, and in the end of Sommer.

Parsnepps.

Red and yealow Carrets.

T H R A. You haue here also in this Garden red Carrets.

M A R I V S.

MARIVS. I haue so. *Yellow Carrets* is called in *Latine* Siler, in *French* Cherville, in *Italian* Silero, in *Spanish* Chiriuas, in *Dutch* Querlin, I thinke you know it. *Plinie* writeth, that *Tiberius* was so in loue with this roote, that he caused Carrets to be pœrely brought him out of *Germanie*, from the *Castell* of *Gelauna* standing vpon the *Rhine*. It delighteth in colde places, and is sowed befoze the *Kalends* of *March*, and of some in *September*: but the third and the best kinde of sowing as some thinke, is in *August*. There is also *wilde Carrets*, a kinde of *Parfnep*, in *Latine* *Daucus*, in *Italian* *Dauco*, in *French* *Carote sauge*, in *Dutch* *Woorzel*, there are that suppose it to be the *yellow roote*, that is so common in *Germanie*, they are to be sowed in *March*. It is generall to *Rapes*, *Kadishes*, *Parfneps*, *Carrets*, *Onions*, and *Lœkes*; that they be well troden vpon, or kept cut, so the end the rootes may grow the greater. Of *Lœkes* Lecker. there are two sorts, the one called *Capitatum*, and the other *Sectium*, which they vse alwaies to cut close by the ground. The headed, or set *Lœke*, in *Latine* *Capitatum*, in *Italian* *Porro capitato*, in *Spanish* *Puerro con Cabeza*, in *Dutch* *Lauch*, in *French* *Porreau*, the other *Lœke* in *Latine* *Sectile*, in *Dutch* *Schnittlauch*, beside the often raking and dunging, must be watered as oft as you cut it downe. The *sœdes* in hotte *Countries*, is sowed in *Januarie* or *Februarie*, and in colder places, in *March*: to cause it to growe the fairer and the better. They vse to knit vp a good deale of *sœde* together in thinne *Linnen* cloathes, and so to lay them in the ground: but to make them greater headed, when it hath well taken roote, they vse to plucke it vp by the blades, and raise it so, that as it were hanging and borne vp by the earth, it is forced to fill the emptie place that lies vnder it: the blades and the rootes cut off, they vse to set the heads, vnderclaying them with a *Tilehard*, that when as they are not able to runne doolne in length, they should be driuen to grow in bignesse and breadth. The *Lœke* delighteth in good ground, and hateth watry ground: sowed in the *Spring*, it must be remoued or set againe after *Haruest*, that they may be the greater, the earth must be continually loosed about it, and they must be pulsed and rayled by, as I said befoze: if when you remoue them, you make in the heads of euerie one a little hole with a pœce of *Rœde*, or any thing except

The second Booke, entreating

Iron, and thrust therein a Cucumber seede, they will grow to a wonderfull greatnesse: some vse in stead of Cucumber seede, to put in Rape seede. To haue very large and great Leekes, you must hollow a Treate of Goates dung, and fill it full of Leek seede, for the little sprout at the first restrained, will runne altogether in one, and so come forth of the ground: and this as Hieronimus Cardanus writeth, hath bene often tried to be true. They shall not saour of Leekes or Onions, that haue eaten Cummin after. It commeth by the tenth day after the sowing, and lasteth two yeere: the first yeere it contenteth it selfe onely with bearing of leaues, the next yeere it riseth in a long stalke hollow within, the top garnished with round knops of flowers. The Onion: in Latine Ceba, or Cepe, in Italian Cipella, in Spanish Cebolla, in French Oignon, the next neighbour to the Leek: is also of two kindes, the one kinde called Capitulum, that groweth to head, the other Fissile, that without any head onely flourisheth in blades, and is often gathered as Leekes are, and therefore onely is sowne, and not set in Februarie or March in faire weather, and in the wane of the Moone: it delighteth in rich ground, well digged and dunged, and therefore Columella would haue the ground well fallowed, that it may be mellowed with the Winter frosts, and after dunged, after well digged againe, and the rootes and weedes cast out, laid out in beds and sowed: it is called Fissile, because it is parted and diuided below, for in the Winter it is left with his top naked: in the Spring time the blades are pulled off, and others come by in their places. The heads are set, and if you plucke away the sayles and the out-growings when you set them, they will grow to be very great. Twenty dayes before you set them, digge the ground well, and lay it dry, and so shall they prosper the better. The heads are set in Autumne, and grow to seed as other plants doe: if you meane to gather the seedes, when the stalke is growne, you must prop it by with little sticke, that the windes shaking of the stalks, shatter not the seedes, nor break the stalk: which seede you must gather before it be all blacke, for the blacknesse is a true signe of the full ripenesse: if you will not haue it seed but head, plucke off the blade still close by the ground, so shall all the maintenance goe to the roote. Among all other hearbs, onely the Onion is not subiect to the force of the Moone, but hath a con-

Onions.

Fissile.

Onions.

trarie

cray powder, for it waxeth in the wane of the Moone, and decreaseth in the encrease of it: yet there are that hold opinion, that if you sow them in the wane, they will be the smaller, and lower; and in the encrease, they will be the greater, and the milder. The red Onyon, is more sharpe then the white, they are best preferred in Barley chaffe, if first you dip them in hot water, and after dry them in the Sunne, till they be thorough dry. They are of the common people thought to last longest, being hanged by in the smoke: for the kindred it hath with the Onyon, I proceede to speake next of Garlicke, called in Latine Allium, in Italian Garlicke. Aglio, in Spanish Aio, in Dutch Knobloich, in French Aux, it groweth with a blade like the Onyon, but not hollow, the stalk round, and the flowers in the top in a round tuft where the side lyeth. Garlicke groweth both of the head and the seede, as the Onyon and other of this kinde doth. It is commonly sowed in Februarie or March, according to the disposition of the weather, as the Onyon is. It would be set in the uppermost part of little narrow ridges, the Cloues being distant foure or five inches one from the other, and not very deepe. After, when the Cloues haue put forth the little strings, or when their blades are come vp, they must be well raked, for the oftner y^e doe so, the greater they will be: but if you will haue the heads the greater, befoze it grow to stalk, you shall winde and wreathe the greene blades together, and tread them to the ground, for that continual treading vpon them will make them the greater. In October the Cloues must be plucked asunder, & set in row vpon high borders, that they may scape the danger of the winter froymes. They say the scent of them will cease if you eate after them the roote of Warts tosted at the fire: thus saith Plinie out of Menander.

T H R A. What herbe is that ponder, that cometh by so hie as a man may make a staffe of the stalk, the leaues large and round, the flower in shape seeming to compare with the Rose?

M A R I V S. It is Holioke, or Garden Mallow, in Latine Mallows. Malua hortensis, in Dutch Peppel, in Italian and French almost as in Latine.

T H R A. What, the same that Horace taketh to be so wholesome for the body: and which of Hesiodus and Marcial is so highly commended?

The second Booke, entreating

MARIUS. The very same: and also which is moze wonderfull in it, the leaues turne about with the Sunne, so that it may serue in stead of a Diall, declaring by the turning of his leaues what time of the day it is, though the Sunne doe not shine, which the Philosophers thinke to be done, by the drawing of his moisture. In Affrica, as Plinie writeth, it commeth in seauen moneths to be like a young tree, and serues well for a walking-staff. It is sowed in October, or in the end of the Summer, as also at other times, that by the comming on of winter, it may be restrayned of his high growth: it reioyceth in rich and moist ground, and must be remoued when it commeth to haue foure or fise leaues, it groweth best when it is young: when it comes to be greater, it dies in the remouing. The vse it both for the pot and for sallets, the taste is better when it is not remoued: you must solve it but thinne for growing too rancke, and in the midst of them, you must lay little clods or stones, it requireth continuall raking, and maketh better the ground where it grows.

THRA. I maruaile whether you sow Purselaine, sith it groweth wilde abroad.

Purslaine. **MARIUS.** The Latines call it Portulacan, with the Italians it hath the same name, in Spanish Verdolaga, in French and Dutch Porchelle, it is sowed in Gardens, and well ordered doth grow the better, and spreadeth the farther, it hath a blacke seede growing in little graine cups.

Buglose. **THRA.** Buglose, that the Latines call Buglossum, the Dutchmen Ochsenzung, or Burresth, the Frenchmen Borauge, the Italians Borache, the Spaniards Boraic. Is not this it that I see here with the faire blew flowre, and a stalk a foot long, and full of branches?

MARIUS. Buglose is at this day with the Apothecaries called Borage, though they differ something in the flowre, and in very deepe they are two sundry Hearbes: for some call the common Borage, the lesser Buglose, and the greater Buglose. It is thought to be that which Dioscorides calleth Circium, the true Buglose: the flowres of both sorts are used in Sallets and in Wine, because it maketh the heart merry, and therefore is called in Greeke *ἡυφροσυνή*, that is to say, gladnes: the leaues are also used in dressing of meates, it is sowed about March, & once sowed it

it will neuer away, there is also a wilde kinde of it.

THRA. I pray you goe forward, and tell vs some thing of Strawberries, which here grow with great plenty and beauty, helped as it seemeth with good ordering.

MARIVS. They are so, for we use to bring rootes out of the woods, which being set and planted in the Garden, prosper exceedingly two or thre yeres together: and after, we eather remove them againe, because they ware wilde, or set the wilde in their places: and so haue we them to yeld their fruit twice in a yere, in the Spring, and in the end of Summer. And although it groweth of it selfe in shaddowy woods in great plenty, as if it delighted in shadow of Trees, yet being brought into the Garden, it delighteth in sunny places, and good ordering, yielding a great deale more and better fruit: it creepeth vpon the ground without a stalke with small strings comming from the roote, with a white flowre, and a leafe like a Trefoile, indented about. The berries, which is the fruit, are red, and taste very pleasantly: the Dutch men call them Erdbern, the Frenchmen Fresles. There is another fruit that groweth something higher, whose berry is also like the Strawberry. Dioscorides seemeth to call it Rubus Idæus, the Wyer of Ida, because it groweth in great abundance vpon the Mountaine Ida. It is not full of prickles, as the other bzaubles are, but soft and tender, full of branches and whitish leaues, it beareth redde berries, something paler than the Strawberry, and very pleasant in taste. The Dutch men call it Imberen, the Frenchmen Frambosas.

THRA. What is that groweth ponder, a yard in height?

MARIVS. It is commonly called Liquerise, in Latine Dulcis Radix, in Italian Regolitia, in Spanissh Regaliza, in French Recluse, in Dutch Clarits, or Susshols.

THRA. I did not thinke to haue found it here. I heare it groweth very plentifull about the Peine, I would be glad to heare how doe you order it, for it hath a roote for the swatnesse thereof (whence it taketh his name) very commendable.

MARIVS. It is set of young springs of the roote: as the Hoppe is, in drie light ground and sunnie.

THRA. What say you to small Reasins, called in Latine Ribes, doe you thinke the olde wiflers knew this bush?

The second Booke, entreating

MARIVS. That which we call at this day Ribes, and the Dutchmen Saint Johns Pearle, because about Midsummer it is garnished with red and rich berries, hauing a tarte taste, quenching thirst, chiefly, the raging and extreame thirst of feuers, and cooling the stomacke, which the Apothecaries in Sugar or Honie keap all the yere, it is thought it was vnknowne to the old writers: but now a common bush bled for enclosing of Gardens, and making of Borders and Arbours: it will easily grow, but that it is something troublefome, by reason of his sharpe prickles to be bent about Sommer heuses.

Hoppes.

THRA. You spake euen now of Hops, doe you set in these your princely Paradises, that plant that is so common with the Countrey man about vs: they make great gaine of it.

MARIVS. Tell you therefore, I pray you, how they doe blesit.

Reade the
perfect or-
dering
hereof, in
Master
Reynold
Scots
booke of
Hoppe-
Gardens.

THRA. It is set of the yong shotes, as you tolde a little before of Liquerise, and that in the end of Sommer: or if they feare a hard winter, in March. The sets or shotes are cut from the olde rootes, and are set in ground well covered with dung and good mould, and afterward hilled, and so suffered to remaine all Winter. In the spring, the earth is stirred with Rakes, and not with Spades, and the hilles raised, and the ground rid of all hurtfull weeds. About Maie, certaine poles are set by, upon which the Hoppe climbeth: all the spray that springeth about the flowze is commonly cut off. About September, or in the end of August, the flowzes or bels are gathered and kept to make Ware with: when the Hoppes are gathered, the remaines are cut doane close to the ground, and the Hills being againe raised, are covered with dung. The tops, and the young buds that come first out in April, are bled to be gathered for Sallets, and kept from growing too ranke. But now I pray you goe on, and returne to the description of your Garden. What excellent Melons, Pompens, Cucumbers, and Courdes haue you here, I pray you tell in what sort you order them.

Cucum-
bers.

MARIVS. Melons (which some, because they are fashioned like Apples, call Pomes) are of like kinde of Cucumbers, and so are the Pepons, which the Frenchmen call Pompeons. The Cucumbers are called in Latine Cucumer, in Italian Cucumero

or Gedruolo, in French and Dutch Cocumbre. They change to Pompeons, and Muskemillions, from which they chiefly differ in shape and greatnesse: when they exceed in greatnesse, they become Pompeons, and when they grow round, they are Melon-pompeons: all these kindes are called of some Writers Melons. The Grecians call all the sorts, as well Cucumbers as Melon-pompeons, by the name of Pompeons and Melons, though there are some that make a difference betwixen Pompeons and Melons, neither doe the learned yet thoroughly agree upon these names, nor can it be certainly said what kinde the olde Writers meant by Pompeons, & Melon-pompeons. Pompeons doe creape along vpon the ground with rough leaues and yellow flouze, and are pleasant to be eaten when they are ripe. The sweetest sort of them they call Succrino, or Muskemillions. The Melon-pompeons are supposed to spring first in Campania, being fashioned like a Quince. This kinde hangeth not, but groweth round lying vpon the ground, and being ripe, doe leaue the stalke,

Some Cucumbers are called Citrini, of their yelownes when they be ripe, and also Citruli, or Citreoli, they grow all in length, and are spotted as the Citrons are: some be called Marin, and be called in Italian Cuculæ Marinae, the seed whereof is to be eaten before they be ripe: they are cut in peeces, and porredge made of them, not much vnlike in fashion to the Melon. There is also another kinde of Cucumber of a huge compasse, almost as big as a bushell: the Polwers and Haruest folkes in Italie, vse to carry great peeces of them to the field with them to quench their thirst. You must set all these kindes in March, the seedes must bee set thinne, two foote one from another, in watrie ground well downe and digged, specially sandie ground: you must lay them in Milke, or water and Honny three dayes: and after drie them and solwe them, so shall you haue them very pleasant. They will haue a very sweet sauour, if their seedes be kept many dayes among Rose-leaues. Pour Cucumbers shall be long and tender, if you set vnder them water in a broad vessel, two handfulls vnder them. They delight in water so much as if they be cut off, they will yet bend toward it, and if they hang or haue any stay, they wil grow crooked, as also if you set oile by them, which they greatly abhorre. The flowers being suffered to grow in pipes, do grow a

The second Booke, entreating

Gourds.

wonderfull length. They loue not the Winter no more then doth the Gourd, whereunto they are almost like in nature: for the flowers, the leaues, and the claspers, are like of them both: but the Gourd is more busie in climbing, so that with hasty growth, it spreadeth quickly ouer the heards and Summer-houses, running vp by the walls, and mounting vp to the very Eiles of the houses, hauing a great fruit of a monstrous bignesse: hanging by a small stalk, in fashion like a Pearre, and greene in colour, although when it hath flowered, it will grow in what fashion you will haue it: they say, there hath bene some of them nine foote in length. The round ones also grow to be vsed for great vessels: the rinde of the new ones, is soft and tender, but of the old ones hard, whereof when the meate is out, traouailers make great bottels to carrie drinke in. The Gourds that are vsed to be eaten in Summer, are sundry in shape, some are round, some long, some broad: and though the fashion be diuers, yet the nature is all one: for it is made by Art to grow in what shape you will, as in the forme of a creeping Dragon, or what you list, they are called in Italian Zuma, in Spanish Calabaz, in Dutch Kuirbisch, in French Vne courge. The seedes that the Gourd beareth next to the stalk (as Paladius saith) are longest, they in the middlest round, and those that lie on the side, short, broate, and flat: if you set the sharpe end of the seede downeward, as Columella saith, you shall haue them both greater Gourds and Cucumbers. It delighteth in a moist, rich, well dunged, and well watered ground. That which groweth without water, brings the pleasanter fruit: and that which hath water enough, makes the lesse looking too. The flowers where they be set, must be digged a foote and a halfe deepe, the third part whereof must be filled with strawe, and then with good rich mould: it must be filled to the middlest, then the seedes being set, must be watered, till they be sprung, and after, earth laid to them still as they growe, till the furrow be filled. They must be set thicke, two foote a sinder, it cometh vp in fire or seauen dayes after the setting. Those that are set in drie ground, must be verie well watered, therefore they vse to set by them earthen pots full of water, with ragges or clouts in them to water them. When they be a little growen, they must haue helpes set by them to climbe vpon, the longer they be, the better the meate is.

You must beware there come no woman néere where you sette them, for their presence doth greatly hurt them. Those that you keepe for seede, you must suffer to remaine vpon the stalk till Winter, and then gather them, and drie them, either in the Sunne or in the smoake, for otherwise the seede will rot and perissh. They will long be preserved, and continue fresh, if after they be gathered, they be put into a close vessell with the Lees of white wine, or hanged in a vessell of Vinegar, so that they touch not the Vinegar.

THRA. What meaneth that great Thistle that springeth there?

MARIVS. Did you neuer read in your Columella of the Hartichoch, specially in his verses that he wrote of Gardening, where he saith:

Goe set the bryttled Hartichoch,
That well with wine agrees, &c.

Athenæus in his second booke Dipnosophus out of Sophoclus.

A Thistle is the Hartichoch that euery where doth grow. It is a Artichoch kinde of Thistle, by the diligence of the Gardener, brought to be a good Garden Hearbe, and in great estimation at Noblemens tables: it is as you see, framed with a ground prickly head, hauing a great sort of Flakes set in order keplewise. The Latines call it Strobilum, because the fruit of it something resembleth the Pine apple. The Frenchmen call it Alticocalum of the Arabicke aticle Al, and Cocalos a Pineapple, whereof it is corruptly called Artichault, in Italian and Spanish Cardo, in Dutch, sometime by the French name, sometime Stobrin. It is called of Columella Cinara, because in his growing; hee chiefly delighteth in Ashes. The seed is best sown in March, and the sets in Nouember: if you will haue it yeld fruit in the spring, you must bestow much ashes vpon it: it will hardly beare the first yeere that it is sown. Beware that you set not the seede with the long end vpbward, for so shall your Artichoch prone very little and euill fauoured: It loueth good ground and well dunged, and prospereth best in fat ground. Palladius would haue you moreover, to set the seedes in well ordered beds, in the encrease of the Hone, halfe a foote a sunder, and not deepe, but taking them in three of your fingers, thrust them downe, till the earth come to the first ioints of your fingers,

The second Booke, entreating

fingers, then couer them tenderly, and water them often, especially toward Summer, so shall you haue the bigger fruit. When they grow vp, they must be continually weeded and dunged, as I said, with ashes. They say, they will lose their prickles, if the tops of the sæde be made blunt vpon a stone before they be set: and sweet they will be, if the sæde be laid in Dilke. You must keepe them from Howles and Mice, with Cats or tame Wæfels, as Ruellius teacheth you. Athenæus calleth the stalk of the Artichoch, *ἀκκτόν*, that lieth vpon the ground, and that which standeth vpright, *ἄρτιχον*.

T H R A. Well, what hearbe is ponder same that commeth by as it were haire, with a blewish flower & pale, hauing in the midst of the belles, as it were, fierie yellow tongues?

Saffron.

M A R I V S. It is Saffron, in Greeke *κρόκος*, in Latine Crocus, in Italian and French, so in Spanilh Aczafran.

T H R A. What neede we care any moze for either Coricum, Sicil, or Cyren, from whence wee fetch it with so great charges?

M A R I V S. Yea, there groweth great plentie of it in Germanie about Spirs, and diuers other places, which may compare in godnesse with any other place. It is set in March, of the head that it hath, round, and in Cloues as the Lyllic, the Læke, and the Sea Onion. Constantine affirmeth, that it may be set of the root, as sone as the flower is off. The rootes or the heads doe so encrease vnder the ground, that of one of them some yære springeth eight or nine others. In many places they are remoued euery seauenth or eight yære into bitter ground, whereby they come againe to be as good as at the first. In the Countreies lying about the Rhine, they pluck them by euery third yære, & lay them a drying in the Sunne till August, and then pulling off the outer skin, they set them againe halfe a foote one from the other: the best heads are those that are fattest, and haue little haire, the worst loke rottenly and ill favouredly, and haue an ill saour: It delighteth to grow by high waies and nere springs, and to be trod and trampled on, prospering as it were by oppression: it groweth greene all the Winter, it is gathered in Autumne, when it is come to his colour, by plucking out the little yellow tongues from the bell, which are afterwards dried thre or foure daies together, and

and well picked and purged, and so made by in Boxes: some thinke it best to dry it in the shadow. It is craftily counterfeited by the Apothecaries, braying it in sod wine, which they besmeare, adding thereto the scum of siluer or lead to encrease the weight, the craft is perceined by the dustinelle thereof, and by the saucur of the sod wine. The proofe of the good is, if it crackle betwæne the hands as a brittle thing, which the counterfeit doth not, or if in putting it to your mouth, it cause your eyes to water. Wherefore, the best is that which is new, and hath a pleasant smell, in colour like to Gold, and dieth the fingers in touching it. In March you must purge the ground where it groweth, and whether ye plucke it by or not, notwithstanding, other hearbs may very well grow there untill August: Purleine, Parsley, or such like hearbs doe best grow there. And when the Saffron beginneth to blowe, you must rid away the other hearbs: for in Harvest time about September or October it bloweth.

T H R A. Here is great store of Rosemarie, the chiefest beauty of Gardens, and not to be wanted in the Kitchen. Rosemary.

M A R I V S. Of the ordering of Rosemarie, sith you will haue me, I will speake a little. There are which suppose it to be the same which the Greekes call *Λεβάνθη*, because it saoureth like Frankencense, in Latine it is called *Rosmarinus*, and in all other tongues it keepeth the name, it serueth both for pleasure and profit. Theophrastus maketh two kindes of it, a barraine, and a fruitfull, and is set of small slips in Aprill: it is set by women for their pleasure, to grow in sundry proportions, as in the fashion of a Cart, a Decocke, or such like thing as they fancies. It delighteth in stonie or rough ground, and in the tops is the seed enclosed in little huskes white and round. It bloweth twice a yeere, in the Spring, and in the end of Summer: it is gathered from May till September, and it is good to plucke off the blowe often, that it may not blowe too much. In the higher parts of France it groweth wilde in such plentie, that they vse almost no other selwell: it is in colde Countries in Winter set in Sellers and hot houses, and is brought againe in the Spring into the Garden. But here you must beware, that when you first bring it out, you keepe it from the March Sunne, setting it in the shadow, acquainting it by little and little with the ayre: some vse to house it

with.

The second Booke, entreating

- Sage.
 With Straw and Horse-dung, and so leaue it in the Garden. Sage, in Latine Salvia, and like in other Languages, is an Hearbe common in euery Garden: it is planted both of the seede, and of the slip, in March, in any kinde of ground, it maketh no matter where: the Gardners vse to lay bucking ashes about it, where by it prospereth the better. Next to Sage, is Mint, in Latine Mentha, in Dutch Myntz, in Italian and French, after the Latine, in Spanish Yerua buena: it is planted and ordred in all things as Sage is: it prospereth both in dry and wet grounds, and groweth well by waters. If you lacke seedes, you may take the seedes of the wilde Mint, and set them with the tops downward, where by they shall leaue their ranknesse; and being once solwe or set, groweth euery yeere. Pimpernell, in Latine Pimpinella, is vsed both in the Kitchin, and in Physicke: and being once solwe, groweth euery yeere, both in sunnie places and in shadowy: it groweth in most places wilde. Hyfop, in Latine Hysopus, and so called in most Tongues in Europe: a common Hearbe, knowne to euery Gardener: it desireth, though no sunny ground, yet good and rich ground, it is planted both of the seede and of the slippe: when it hath once taken roote, it careth not for the sharpnesse of winter. Sauorie, in Latine Satureia, or, as Columella saith, Cunila, in Italian Coniella, Sauoreggia, Thymbre, in French, Sauoreic, in Dutch Kuuelzwibelhisop, groweth in barraine places, and is set and solwed as the plants before. The next is that which commonly is called Basyll, in Latine Ocimum, in French, Italian, and Dutch, Basilica: an hearbe that is vsed to be set in the midst of knots, and in windowes, for the excellent sauour that it hath: it is also good for the pot: it is solwed in March & Aprill, and delighteth in sunny ground, you must put two seedes still together. Babil is best watred at none, whereas all other hearbes are to be watred in the morning and in the euening, it may be remoued in May. Theophrastus sayth, that it prospereth best, when it is solwed with curses. Marierum, in Latine Amaracus, and Maiorana, is also in like sort vsed: the Dutch and the Italians call it after the Latine, the Spaniards Amoredux, the French Mariolaicne and Thyn, in Græke of Dioscorides & Paulus ἄγιγία συμποικον: this also for the pleasant sauour it hath is set in pots and in Gardens: it is solwed in March three or foure seeds together, and halfe

a soke asunder, in May when it groweth to some height, as Basyl, it is remoued. Time, more of kindred to these, in French, Italian, and Dutch like the Latine, in Spanish Tomillo, delighteth in stony, light, and sunnie ground: it springeth both of the seed and of the slippe, and also of the stowe, as Theophrastus saith, These thre tender and delicate Herbs, are to be sowed with great haste, either in earthen pots, or in Garden beds. Hitherto haue I described unto you such Herbs as serue for the kitchen: and because the later sort are also esteemed for the saouours, I will goe forward with the description of the rest that are set in Gardens for the pleasure of them, and for the saour, doe garnish the said Gardens, and serue also for other purposes. Of Rosemarie I spake befoze, I will now proceede with these that grow befoze my face. Lauender, called in Latine Lauanda, or Lauendula, that groweth in borders about the beds, and keepeth the Latine name in other tongues, doth grow in wilde places and stonie: it is set of the slips, and remoued: it groweth to Spike in June, and in July is gathered and tyed in bundles for the saour, the stowe is distilled for sweet waters. Flowre-gentle, in Latine Amaranthus, though it haue no saour at all: yet hath it a delightfull beautie to the eye: the Frenchmen, for the fairenesse of the colours, excellling both Crimson and Purple in graine, doe call it Palleuelleurs, the Italians Fiorueluto, because it contendeth in colour with Crimson in graine: it loueth to be often gathered and plucked, whereby it springeth the better: the stowes after they be dead, with a little water come againe to their colour: it is called Amaranthus, because it dyeth not.

T H R A. Here followeth Lauender-cotten.

M A R I V S. This Lauender-cotten: some call it Santonia, and female Southernewood, in Dutch it is called Cypressen, in French Cyprez: it groweth commonly in Gardens, springing euery yeere. Myrtell, in Latine Myrtus, in Italian Myrto, in Spanish Arabian, in French Meurte, in Dutch Welscheidelber, the leaues are not much unlike the leaues of the Olius tree, something smaller, with slender branches, and leaues growing in order one by another, as you see, with blacke berries, and leaved like the Pomegranate. It groweth alwaies greene: it is set and sowed both of the seed and slippe, and the stowe: but you must still

will raise by the earth about it: till it be thoroughly rooted. Some sow the berries being a little beaten, and covered in Furrowes of earth: it delighteth in continuall watering: so groweth it to a handsome height, like to Shadow Herbs: it loveth to be watered with the Urine of men, or of Sheepe. This onely is to be wondred at, that of the liquor thereof alone, may be made all sorts of Wine and Oyle: Cato teacheth to make Wine of the berries, being dyed, and put in water and henp sodden together: if they be not dyed, they come to Oyle: how the Wine of them is made, Dioscorides sufficiently declareth. Plinie reporteth, that Cato made three sorts of Pyxtels, white, blacke, and a third kind, that he calleth Coniugale: it delighteth to grow by the Sea bankes, as Seruius saith, it groweth at this day commonly in Italy, along by the Sea coasts.

Geliflowres **THRA.** Oh what swete and godly Geliflowres are here! You may truly say, that Salomon in all his Princely pompe, was never able to attaine to this beautie: some of them glitter with a perfect Crimson dye, some with a deepe Purple, and some with a passing beautifull Carnation: I marvelle the old writers knew nothing of these in their time.

MARIVS. There are some that suppose it to be a kinde of Garden Betonie, which the Gardners fetching out of the field, and thrusting Cloues into the rootes of them, with diligent planting, haue brought to this excellency: others thinke it to be called Veronica of the Spaniards, who first found it. Some thinke it to be Oenanthe, because it flowreth with the Wine: it delighteth in warme sunnie ground: it is sowed seldome of seede, but commonly set of the slips, as I sayd of Rosemarie. The Gardners in the end of Sumner, doe take the rootes and set them in Varnes, Pots, or Dales, and when the frosts come, they carry them into their Sellers, and in sayre warme dayes bring them abroad againe, and suffer them to be now or then watered with the rayne. It hath bene often scene, that in such vaults or sellers they haue flowred all the Winter long, though warmenesse of the place: some set boughes about them, and couer them with Straw and Horse-dung, to preserve them against the cold: it often happeneth that one roote beareth one yere white flowres and red, and the third speckled or Carnation.

THRASIVS. Doe, ponder are Roses growing in Borders, and made in a maze: doe they grow of the seede, or of the set?

MARIVS. Roses, called in Latine Rosa, and in all other languages as in Latine, are diuersly planted, sometime of the rootes, sometime of the bzaunches, being cut in small sets, and planted a foote asunder. Some wreathe them in Garlands, and so set them to haue them smell the pleasanter. The vse of sowing of them is best: how be it, they will very well grow of the seede, though it be long ere they spring, and therefore they set them of sets a foote in length, it neither delighteth in rich nor moist ground, but is well contented to grow amongst rubbish, and vnder walles. The places where they must grow must be digged deeper then Cozne ground, and not so deepe as the Vineyard: the Rose is rather a Thorne then a plant, and groweth vpon the very bzambles: it commeth first out in a little budde and long sharpe beard, which after they be opened, it discloseth it selfe and spreadeth abroad, with a yelow hairie tuske in the midst. Plinie maketh mention of sundry sorts of them: one sort he calleth Milesia, having an Orient and fiery colour, another Alabandica, with white leaues, and Spermonia, the basest sort of all: the Damaske and the White, are vsed for sweet waters: they differ in roughnes, prickles, colour and smell. There are that haue but onely five leaues, and others with an hundred leaues, neither good in beauty nor in sinell: the roughnes of the rinde (as Plinie sayth) is a signe of the saour. There are some little pale ones, called Carnation and Bzouincars, these doe wonderfully grow where they once are planted, and haue a most excellent saour. Muske
Roses. Roses are vsed to be set in February, which is either done with the seed, or the set planted in little Furrowes. The seedes (as Paladius sayth) are not the little yelow things in the midst of the Rose, but the graines that grow within the red riped Berry: the ripenes wherof is deemed by the swarthinesse and the softnesse of the berrie: where they once are planted, they continue long, and after they die, they send out new buds and springes. If you lacke sets, and wouid of a few haue a great number, take the bzaunches that begin as it were, to shew their buds, and cutting them in sundry sets, foure or five fingers in length, set them in good ground well dunged and watered:

The second Booke, entreating

watered : and when they be of a yeres growth, take them by,
and set them a foote asunder, proine them and trimme them with
often digging about them. Koses must still be cut, for the more
you cut them, the thicker and the doubler they grow, other wise
they will ware single and wilde, it will also doe them good some
time to burne them : being remoued, it springeth very soone and
well, being set of sets soure fingers long and more, after the set-
ting of the seauen Starres, and after r. moued in a Westerly
winde, and set a foote asunder, and often digged. The old Koseys
must haue the earth loosed about them in February, and the dead
twigges cut off, and where they ware thinne, they must be repay-
red with the young springes. To haue Koses of fine sundry co-
lours vpon one roote, make when they begin to burgen, a fine
hole beneath in the stocke vnder the ioynt, & fill it with red colour
made of Brasell sod in water, and thrust it in with a cloath, and
in the like sozt put into another part of the stocke græne colour,
and in an other yelow, and what other colours you will, & couer
the holes wel with Dre doung & Lome, or very good earth. If you
will haue your Koses beare betimes, make a little trench of two
hand-bredths round about it, and polvre in hot water thise a
day, and thus doing, (as Democritus promiseth) you shall haue
Koses in January. You may pzeferue Koses befoze they open, if
making a slit in a Ræde, you enclose the blossome, and when you
would haue fresh Koses, take them out of the Rædes : others put
them in Earthen Pots close conered, and set them abroad : the
Koses continue alwaies fresh that are dipt in the Dregges of
Dyle. If you will haue them at all times, you must set them euery
moneth, and dung them, and so (as Didymus saith) you shall haue
them continually. To cause them, or any other flowers to grow
double, put two or thre of the seedes in a Wheat straw, and so
lay them in the ground. If you set Garlicke by your Koses, they
will be the sweeter: the dyper the ground is where they grow, the
sweeter they will be, as it appeareth by the season of the yere,
for some yeres they are sweeter then others : the Rose will be
white, that is smoaked with Brimstone, when it beginneth to
open: amongst all Koses, those are most to be commended, that
they call Carnations and Prouincials. The Dyle of Koses was
greatly had in estimation euen in Homer his time, and at this day
the

the Vinegar of Roses is greatly vsed. Pert vnto the Rose in worthinesse, for his saour and beautifull whitenesse is the Lilly, Lillies. called in Italian Giglio, in Spanish Tirio, in French Fleur de Lis, in Dutch Lilien. The Greekes hold opinion: that it sprang first of Iunos Milke sprinkled vpon the ground. In Februarye we begin to set Lillies, or if they grew before, to loose the earth about them with a rake, taking good heed, that the young tender shootes about the roote be not hurt, nor the little head, which taken from the old roote, we set for new Lillies. As the Roses are, so are the Lillies, the swæter, the drier the ground is where they grow: Lillies and Roses being once set, continue both very long. There are red Lillies made so by Art, for they take the stalkes and rootes of the Lillie, and hang them in the sinoake till they wither, and when the knots begin to vncouer, they are laid in March in the Lees of red wine, till they be coloured, and then set in the ground, with the Lees powred about them, so will they come to be purple. Violet in Greeke is *Ιου*, in Latine Viola: Violet black, and Violet purple, *Ιου μέλαν, καὶ ἰου πορφύρεον*, in Italian it is called Viola porporia, in Spanish Violetta, in French Violets de Mars Violets. & Careme, in Dutch Fiolen: these although they grow wilde about euery Hedge and Wall: yet are they set in Gardens with other flowers.

There are sundry sorts of Violets, both of kinde and colour, but the ordering of them is in a manner all one.

T H R A. I haue now heard enough of Kitchin hearbes and flowres, therfore now, I pray you, let me heare you say something of the third sort, that is Phisicke hearbes, for me someth I see a great sort of healing hearbs here in your Garden.

M A R I V S. Nature hath appointed remedies in a readinesse for all diseases, but the craft and subtiltie of man, for gaine, hath deuised Apothecaries shops, in which a mans life is to be sold and bought: where for a little byle, they fetch their medicines from Hierusalem, and out of Turkie, while in the meane time euery poore man hath the right remedies growing in his Garden: for if men would make their Gardens their Phisicians, the Phisicians craft would soone decay. You know what your olde friend Cato saith, and what a deale of Phisicke he fetched out of a poore Colwort.

It is but
the opini-
on of a
Gardiner.

The second Booke, entreating

THRA. I doe remcinber it, and that he saith he was wont both to helpe himselfe, and his whole family with the hearbes of his Garden. But what hearbe is yonder with the long stalke, and the long blacke indented leaues on the top? If I be not deceiued it is Bearefoote, with whole roote we vse to heale our cattell when they be sicke.

Bearfoote
or Setter-
wort.

MARIVS. It is so indæde, and is called in Latine Veratrum, there are two kindes of it, the blacke and the white: the White is that which the Dutchmen call Nyswurts Wranckraut, the Blacke they call Kristwurts, because it flowzeth about Christi masse: the Italians, the Spaniards, and the Frenchmen keepe the Greeke name. The roote of the Bearefoot they thrust through the eare, or into the breast of the beast, that is either diseased in his lungs, or hath the Murren. Columella seemeth to call it Conligillo: it groweth not in Gardens, except it be solued, it conli- nueth long, and loueth colde and wooddie ground. There stands, not farre from that, another very noble hearbe in Physicke called

Angelica.

Angelica, it is supposed to be called in Greeke *abgeis*, and whether it be Myrrhis with the Latines or no, I leaue that to the Philistians to discusse: it is called with the Italians, Spaniards, Frenchmen, and Germanes Angelica. His roote, because it is a soueraigne remedie against the plague, and hath diuers other good operations, it is cherished in our Gardens, and being once solued, it commeth by euery yeare: it groweth also wilde in the mountaine Countrey, and flowzeth in Iuly and August. Here is also Helicampana, in Latine Enula, in Italian Encla, in Spanissh Enula campana, in French Aulne, in Dutry Alaut, this also is set in our Gardens for medicines sake, and we make much of it for the root, it groweth wilde in the hilly Countries, and dry shaddowie places.

Helicam-
pana.

In Summer the roote is taken out of the ground, and cut in small peeces, and so dyed: at this day it is called Enula campana: it hath a yelloe flower, a leafe like Quillin, but white and hoarie at the one side. Wormewood, though it grow in euery place; yet this that you see here is Romane or Pontibe. Wormewood, the Latines call it Cerephium or Absinthium Romanum, the Dutchmen Romilchewernut, the Italians Allenso, the Spaniards Ensanfos, the Frenchmen Aluine and Ablince, this kinde is set in our Gardens, and thought to be the best. Sauine which we haue here

Worme-
wood.

Sauine.

also

also in our Gardens, for diuers diseases of Castell, is called in Latine Sabina, in Dutch Seuenboun, in Italian as in Latine, in Spanish likewise, in French Sauiuer, it hath leanes like Juniper or Cypress, alwayes græne, there are two kindes of it, one like the Tamariske, the other like Cypress: it is a bush rather spreading in breadth, then growing in height: the Berries which he beareth, may be gathered in the end of Summer, or any other time.

THRA. But many times we see Gardens to be destroyed with woymes and vermine, what remedy haue you for this?

MARIVS. Of the faults of the ground, and the remedie thereof, as the amending of either too much moisture or drynesse: I spake in the beginning, touching Woymes, Filces, and other vermine that annoy the Gardens, which for the most part are these, Caterpillers, Snailles, Moles, Mice, Gnats, and Antes. There are that say, that if you mingle with your seedes soote, or the Juice of Houselæke, or Singræu, the Caterpillers will not meddle with the hearbe that springeth of such seede: and that they will doe no harme to your Trees, if you sprinkle them with the water wherein the ashes of Vines hath bene laid: mozcouer the stalkes of Garlicke made in bundels, and burnt in Orchards or Gardens, destroyeth the Caterpillers. They will not breed (as they say) if you burne about the rootes of your hearbes or Trees, quicke Brimstone and Lime: the same they report of Aie made of the Fig tree, Ants will not annoy your corne or hearbs, if you compass it round with Chalke, or put into their hills, the ashes of burnt Snailles, and if some of them be taken & burnt, the rest will not come nere the saour: if Alla foetida be laid in Oyle, and powdered vpon their hills, it vtterly destroyeth them, they wil not touch the trees nor the hearbs, if you annoint the stalkes with bitter Lupines, or lime laid with oyle. You must shake off the Caterpillers in the morning, or late in the evening when they be numbed: also water wherein Dill hath bene sodden, cast about in the Orchard when it is colde, destroyeth them. It is written, that if you set Chiches about your Garden, Caterpillers will not breed, and if they be already bred, you must seeth the iuyce of Wormewood, and cast among them. The dung of Bullocks burnt vpon the coales, destroyeth Gnats: the like also doth brimstone: a sponge wet with

Against
Caterpillers.

Gnats.

The second Booke, entreating

vinegar and hanged vp, draweth also snarines of Gnats vnto it: also the maſw of a Shæpe new killed, not washed nor made cleane, if it be laid in the place where Mothes, or other ſuch vermine doe vſe, and couered a little the vpper part, you ſhall after two dayes finde all the noyſome Vermine crept into it: thus muſt you doe twice or thriſe, till you thinke you haue deſtroyed them all.

Moles. Of killing and dꝛiuing away Moles. Scion the Cræke with teth, that you muſt take a Nut, or any like fruit, and making it hollow within, fill it vp with Chaffe, Rozen, and Brimſtone, afterward ſtoppe the vent holes that the Mole hath in euery place, that the ſmoake breake not out, onely leauing one open, where you ſhall lay the Nut, in ſuch ſort as it may receiue the winde on the backe part, that may dꝛiue the ſmoake into the Mines, there are alſo traps to be made, for the deſtroying of Moles: a frame is to be ſet vpon the new Hills, with a piece of wood ſo hollow and framed, that it may receiue (as it were in a Sheath) an other pæce of wood made in faſhion like a Knife, to this is loyned an other little ſticke that lieth in the hole, and is faſtned to a Catch without, that as ſoone as the Mole toucheth the ſticke within, thee is taken preſently, as it were, with a payre of Sheeres. Miſe are taken, if yee powꝛe into a platter, the thickeſt mother of Dyle, and ſet in the houſe a night, as many as come at it are taken: alſo the roote of Beareſoot mingled with Cheſe, Bread, ſlowꝛe, or greaſe, killeth them. Tarte and very ſharpe Vinegar mingled with the iuyce of Henbane, and ſprinkled vpon the Hearbes, killeth the Fleas, or little blacke wormes that be in them. No kind of vermine will annoy your Hearbes, if you take a good ſort of Creſſhes, and caſt them in an earthen veſſel with water, ſuffering them to worke abroad in the Sunne for the ſpace of ten dayes, and after with their liquour ſprinkle your Hearbes. But I keepe you long in this ill-fauoured Garden, if it pleaſe you wee will walke into the Orchard adioyning.

Myſe.

Garden
Fleas.

T H R A. With a very good will, although the goodly fayre colour and ſweet ſauours of theſe Hearbes and ſlowꝛes, beſide the fayre hedges incloſing it, as it were, with a gorgeous græne tapeſtrie, make me that I could abide here euer.

Of Or-
chards.

M A R I V S. Both the Garden and the Orchard are incloſed with ſeueral hedges and ditches, wherby they are defended from hurtfull

hurtfull beasts and vnruely folks (as I told you at the first) when I began to speake of the enclosing of Gardens and Orchards.

T H R A. Every thing liketh me passing well: God Lord what a pleasant ground, what a Paradise is this? me thinkes I see the Orchards of Alcinous, the Trees are set Checkerwise, and so catred, as looke which way you will, they lie leuell: King Cyrus himselfe neuer had better. If Lysander had euer seene this Orchard, he would haue wondred a great deale more, then he did at Cyrus his Orchard.

M A R I V S. Such gorgeous Gardens and Orchards as Princes haue, I neither desire, nor meane to counterfeit: but vsing the diligence of a poore Countrey Gardener, I build (as they say) my walls according to my wealth. I framed the order, and set the most part of these Trees with mine owne hands, following herein, the Fathers of the old time, who delighted themselves chiefly with this kinde of Philosophie. So then (as I thinke) the Trees and Woods to be the greatestt commoditie giuen to men: for besides the house pleasure that they minister vnto vs, the gracious Lord, that is the giuer of all good things, hath also giuen vs a number of other goodly commodities by them, which at the first serued men for foode, couering, and clothing: which commodities, the very Ethnicks had in estimation. But vnto vs that know God, by whom we haue receiued our preheminnce aboue all other creatures, which benefit we ought with thanks to acknowledge, the holy Scripture doth teach a more higher and mysticall consideration: for before that gracious Lord had framed man, willing to prouide him of foode and apparell, he caused all kinde of pleasant Trees bearing fruit to spring out of the earth, that they might serue for the sustentance of man: and in the midst he planted the Tree of life: and thereby, the Tree of knowledge of good and euill: to the end that Adam might haue an assured signe of his dutie and reuerence towards God, out of which the Lord (as in a Temple did speake vnto Adam) and Adam himselfe, if he had continued in his innocencie after his refection of the Tree of life, had with his posteritie preached God, and alwaies bene thankfull vnto him, for his authoritie giuen vnto him ouer all other creatures, as the Propheticall Psalmist singeth. This that through the bountifull liberalitie of God was

The second Booke, entreating

giuen vs to so god an end, the vngodly and wicked posteritie turned to Idolatrie, consecrating both Trees and Groues, to the Idols of the Heathen.

THRA. What : me thinks you begin to play the Preacher with me.

MARIVS. Surely, there is no better a place to preach in then here, to acknowledge the Creator in his creatures, and by these visible workes : to behold the Almighty and euerlasting power, blessednesse, bountifulnesse, and Godhead, of the incomprehensible Workman, and alwaies to speake and preach of them : but I will say more hereafter. The planting of Trees doth out of all doubt (as I said) bying vnto vs both profit and pleasures : and therefore this part of husbandry, must not be neglected, for Columella accounts it one of the chiefest points of husbandry, which the Poet seems to agree vnto.

Of tyllage all this while, and of the starres,
We here haue talked.

And Bacchus now of thee I meane to sing, &c.

THRA. I pray you then declare vnto me, the order of planting and preseruing of Trees.

MARIVS. Let vs first sit downe under the shadow of this faire Vine, that yeldeth both pleasant Wine, and comfortable shadow.

THRA. Agreed.

MARIVS. The sorts of Trees are diuers and manifold : some grow wilde, some come of the seede, some of the roote, as the selfe same Poet saith.

Some sorts there are, that of the seede are sowne.

And some that set of rootes, to seedes are growne.

Some doe grow and spring of themselues : a number of others againe are to be sowne. Those that grow wilde without the labour of man, doe beare their seedes each one according to his kinde : but those that are set and dress, doe yeld greater increase. There are diuers againe that are alwaies greene, and doe neuer lose their leafe, which are (as Constantine reporteth) these, the Date, the Orange, the Lemon, the Cytron, the Bay, the Oliue, the Cypresse, the Pine, the Hollie, the Bore, Myrtill, Cedar, and Juniper. As for strange Trees, and those that will growe no where

where but at home, we will not meddle withall : we will therefore begin first with those that yield vs sustenance, and beare fruit, and those are diuided into thre sorts : for either of the Sets they come to be Trees as the Olive is, or else Shrubs as the wilde Date, or neither Tree nor Shrub as the Vine.

THRA. I desire to heare your opinion of euery sort, for I thinke it no small skill to plant such faire Gardens, Orchards, and Vineyards. He thinks you haue used a wonderful good order, that amongst your Vines, you haue entermedled Olive trees, Figge trees, Almonds, and Appecots, and that you haue seuered your Orchard from your Garden, and your Vineyard from them both, with faire hedges and ditches.

MARIVS. It was needefull so to doe, leass my folkes labouring in some of them should come into the rest, contrarie to my pleasure. First, if you will, I will speake of those that bring vs fruit, and then of the wilde, and the order of setting and planting of Woods. First (as Columella saith) that ground that serueth for an Orchard, will serue for a Vineyard, as you see it doth here: and if the ground be hilly, rugged, and vneuen, it is moze meete for a Vineyard then for an Orchard. If therefore you will make an Orchard, you must chose such a ground as is meete for it : a rich ground, leuell, and lying vpon the Sunne, which when you haue found, you must well enclose it : as I taught you before in the enclosure of Gardens, that it may lie out of danger of Cattell and knaues : for although that the trampling, and dunging of Cattell, is not vnprofitable to the Trees, yet if they be either bursed or broken whiles they be young, they will sone come to nought. When you meare to dresse your Orchard place thus fenced, you shall make your furrowes a yere before you plant them, so shall they be well seasoned with the Sunne and the raine: and whatsoeuer you plant, shall the soner take. But if you will needes plant the same yere, that you make your furrowes, let the furrowes be made at least two moneths before : after fill them full of straw, and set it on fire. The broader and wider that you make your furrowes, the fairer and moze scuitfull will your Trees be, and the fruit the better. Your furrowes must be made like an ouen, or furnace, wider at the bottome then aboue, that the roote may spread the better, and the colde in Winter, and the heate in

How to
make an
Orchard.

Summer, may the better bee kept from it, and also in steepe grounds, the earth shall not so easely be washed away. In setting of your fruit trees & Vines, you must place them in order, epyther Checkerwise, or Rowewise: which needfull order of setting, is not onely profitable, by receiuing the ayre, but also very beautifull to the eye: when as which way soeuer you looke, you shall see them stand in ranke, and which also is to good purpose, for the Trees shall equally receiue their moisture from the ground.

T H R A. I see the Gardners in euery place obserue this order, setting their Trees in such propoztion, as which way soeuer you looke, your eye shall not bee let, but shall see the Trees stand straight in order.

M A R I V S. I haue vsed two sortes of this ordered order, one wherein my Trees stand square like the Chequer or Chessboard: the other not in square as the first, but Lining-wise or Diamond-wise, like the glasse windowes or Nets. You must frame it according to the nature of the trees, lest the lower sort be drowned of the higher. You must also set them a good distance asunder, that their branches may spread at pleasure, for if you set them too thicke, you shall be able to sow nothing betwixt them, and they will be the lesse fruitfull. Therefore Palladius would haue the space betwixt them, thirtie foote at the least: there is more profit in the generall disposing of them, entermedling the greater with the lesser, so as the great ones doe not annoy their vnderlings, either with their shadow or dropping, for that they grow not equall to them in strength or bignesse. Poinegranates and Apples must be sowed nexer together, as nine foote asunder, Apples nexer then they, and Peares nexer then them both: but of them there are sundry sorts Almonds and Fig trees must also be set nexer. And because there is a naturall friendship and loue betwixt certaine Trees, you must set them the nexer together, as the Vine & the Olive, the Poinegranate and the Myzell. On the other side, you must set farre asunder such as haue mutuall hatred among them, as the Vine with the Filbert & the Bay. There are some of them, that desire to stand, two and two together, as the Chestnut: the droppings also do great hurt of all sorts, but specially the droppings of Oakes, Pinetrees, & Hawtholmes. Moreover, the shadows of diuers of them are hurtfull,

Dropping
of Trees.

Friendship
amongst
Trees.

Shadows
of Trees.

as of the Walnut tree, whose shadow is unwholesome for men, and the Pine tree that killeth young Springs: yet they both resist the winde, and therefore are best to be set in the outer sides of the Orchards, as hereafter shall be said. Of the place and the order, perhaps you thinke I haue sayd enough, and looke that I should proceed to the order of planting and setting.

T H R A. What time is the best for planting and setting of Trees?

M A R I V S. The chiefest time of planting (as Florentine sayth) is the end of Sommer, for then is nature most occupied about the root, as in the spring about the vpper parts: and therefore grafting is meetest in the spring, and setting in the end of Sommer: for the plants are watred all the Winter, & therefore it is best setting or planting, from the setting of the seauen Stars, vntill the twelfth of December. In the Spring time, you may set those things that you forgot before: at what season soener it be, looke that you set them in the afternoone, in a sayze westerly winde, and in the wane of the Moone. Plinie saith, that this note is of great importance for the encrease of the Tree, and goodnesse of the fruit. If the Tree be planted in the encrease of the Moone, it groweth to be very great: but if it be in the waine, it will be smaller, yet a great deale moze lasting.

T H R A. But are there moze wayes then one of planting and setting?

M A R I V S. A great sort: we plant eyther by Grafting, setting of the kernell, or the stone, setting the rootes, stocks, or slips, grafting betwixt the Barke and the Tree: some are planted in some of these sorts, others in all. In Babilon (as they say) one y the lease set comes to be a tree: first I will speake of Grafting, and then of the rest. There are that appoint but three kinde of Grafting, betwixt the barke and the woode, in the stocke, and inplastring, or inoculation. The first sort they call Grafting, the second imbranching, the third inoculation, or imbudding. Such Trees as haue thickest barkes, and draw most Sappe from the ground, are best grafted betwixt the barke and the woode, as the Figge, the Cherie, and the Oliue: those that haue thin rindes, and content themselues with lesse moisure, as if the Sappe leauing the barke should gather it selfe to the heart, as the Orange tree,

Time of planting.

Time for grafting.

The obseruation of the Moone.

The kinde of planting, and grafting of trees.

Three kinde of Grafting.

What trees are best to be grafted betwixt the barke and the woode.

The second Booke, entreating

What
trees a-
gree best
together.

To haue
red Peares
& Apples.

A Peach
with an
Almond
in it.

Oliue
grape.

tree, the Apple tree, the Vine, and diuers others, in these it is best to open the stocke, and graffe in the woode. Some Trees are also best Grafted vpon other. Some, the Figge that prospereth best vpon the Mulbery stocke, and the Plaine tree: the Mulbery vpon the Chestnut, and the Beeche, the Apple, the Pearre, the Elm, and the white Poplar, wherein if you graffe, you shall haue your Mulberies white: vpon the same stocke are grafted the Pearre, the Quince, the Medlar, and the Scruille: the Pearre vpon the Pomegranate, the Quince, the Mulberie, and the Almon. If you Graffe your Pearre vpon a Mulbery, you shall haue red Peares: the Apple is Grafted vpon all Pearre stockes, and Crab sets, Willow, and Poplar: being Grafted vpon the Quince, it bringeth forth the fruit which the Crookes call Melimella: it is also Grafted vpon the Plumtree, but being Grafted vpon the Plaine tree, it bringeth forth red Apples. The Medlar being Grafted vpon the Thorne, the Graffe groweth to great bignesse, but the stocke continues small: vpon the Pine-tree, it bringeth a sweet fruit, but not lasting. The Peach grafted in the Thorne, or the Beeche, groweth to be very faire, and great: the Almond and the Peach being ioyned together, and Grafted in the Plumtree, will beare a Peach with an Almond in the stone. The Filbert will onely be grafted in the Wilding, not agreeing with any other. The Pomegranate delighteth in diuers stockes, as in the Willow, the Bay, the Ache, the Damson, the Plome, and the Almond, vpon all which hee prospereth well. The Damson groweth very well vpon any kinde of wilde Pearre, Quince, and Apple: the Chestnut liketh well the Walnut, and the Beech. The Cherrie refuseth not the companie of the Peach, nor the Turpentine, nor they his: the Quince will well be grafted vpon the Barberie: the Nittle vpon the Sallow: the Plum vpon the Damson: the Almond vpon the Filbert: the Citron, because of his tender Tree, and thinner rinde, will scarcely beare any other graffe, and therefore contents himselfe with his owne bzaunch. The Vine that is grafted vpon the Cherie tree (Florentinus promise) will beare Grapes, and grafted vpon the Oliue, will bring forth a fruit that bearing the name of both his parents, is called Elxostaphilos. In fine, all young Trees that haue sap in the barked, may be Grafted: if it be greater, it is best Grafting nere the

the roote, where both the barke and the wood, by the reason of the néerrenesse of the ground are full of sappe. He then that will graff either in the stocke, or betwixt the stocke and the rinde, let him gather his Graffs from a fruitfull tender tree, and full of ioynts, and out of the new spring, except he meane to Graffe an old tree, when as, the sturdier Graffes be, the better they are, otherwise the last shootes of such trees as haue lately borne will be the best. You must gather them on that side the tree that lyeth vpon the North: others like better the East side then the shadowy. Virgill forbiddeth those that groweth on the top, thinking them better that growes out of the side. To be choise, your Graffes must be full of buds, lately growne out, smothe, the rinde smothe, good, and readie to grow: they must be of the last yeres growth, which is knowne by the knots or ioynts, that declare euery yeres growth. Beside, Graffes of all trees are not to be gathered alike: For Vines and Figge trees are dyest in the middle parts, and take best of the top, and therefore from thence you must gather your Graffes. Oliues are fullest of sappe in the midst, and the outer parts dyest. Those best agré together, whose rindes are néerest of nature, and doe blossome, and beare both about a time. You must gather your Graffes in the wane of the Moone, tenne dayes before you Graffe them. Constantine addeth this reason, That it is néede the Graffe doe a little wither, that he may the better be receiued of the stocke. You must appoynt your Graffing time in the Spring, from March, when as the buds doe begin to borgen, but not come out (although you may Graffe the Pearre when his leaues be out) vntill May: for Graffing in raine is profitable, but not for imbranching. The Oliue, whose springs doe longest bud, and haue much sappe vnder the barke, the abundance whereof doth hurt the Graffe, must be Graffed (as Florentine sayth) from May, till June. Columella would haue the Oliue Graffed from the twelfth of March, till the first, or the sixt of April, and the time of Graffing to be the Moone encreasing, in the afternoone, when there bloweth no Southwinde. When you haue found a good Graffe, take your knife (being very sharpe) and pare it about a thre fingers from the ioynt downward, so much as shall be méete to be set in the stocke: that part that is vnder the ioynt (not perishing the pith) you must cut with your knife,

The choise
of Graf-
sing.

The knots

The time
for Graf-
sing.

The man-
ner of
Graffing,

The second Booke, entreating

as if you should make a pen, so as the wood with the wood, and the barke with the barke, may ioyne together, as iust as may be. Which being done, if you meane to graffe in the stocke, you must first Sawe it smooth, and then cleaue it in the midst with a sharpe knife, about thre fingers: and to the end you may handsemely put in your Graffe, you must haue a little wedg of wood or Iron, (Plinie thinks it better of bone) which wedg (when you will graffe betwene the riade and the stocke) must be made flatte on the one side, and round on the other, and the Graffe must be pared also flat on that side that must stand next the wood, taking alwaies good heed, that the pith be not perished: the other part must onely haue the rinde pulled off, which after you must set in the cleft, or betwixt the barke, till you see all parts agree together. Some doe cut the point of their Graffe thre square, so as two sides are bare, and the other couered with his barke: and in that sort they vse to Graffe in a stocke one against another: but it is thought best to Graffe no more but one. When you haue thus set in your Graffe in the stocke, plucke out the wedg: but here is a great carefulnesse, and heed to be vsed: and therefore good Crafters, thinke it best to hold the Graffe euen with both hands, lest in the binding and pulling out of the wedg, the Graffe be hurt, or stand vneuen. For auoyding of which, some vse for to binde the stocke about, and after to put the wedg, the hands keeping it from opening too wide. The harder they be set in, the longer will they be ere they beare, but will indure the better: you must take heed therefore, that the cleft be not too slacke nor too straight. When you haue thus Grafted, binde the stocke with a twig, and couer it with loame, well tempred with chaffe, two fingers thickness, and (putting molle round about it) tie it by so, that there come no raine at it, nor be hurt with the Sunne or the winde. This is the order both in the old time, and at this day vsed: though in Columellas time (as it appeareth) they were not wont to Graffe, but onely betwixt the barke and the wood: for the old people (as Plinie writeth) durst not as yet meddle with cleauing of the stocke: at length they presumed to make holes, and Graffe in the pith, and so at last wared bold to cleaue the stocke. Cato would haue the stocke couered with clay and chalke, mingled with sand and Dre-dung, and so made in moztter. Some
time

time they Graffe with the top of the Graft downeward, and they doe it to make a little Tree spread in breadth. It is best Graffing next the ground, if the knots and the stocks will suffer: and Plinie would haue the Graffe grow forth not aboue five fingers. If you will Graffe a little Tree, cut it nere the ground, so as it be a foote and a halfe high. If you would carry your Grafts farre, they will longest keepe their sappe, if they be thrust into the roote of a Rape: and that they will be preserued, if they lye betwixt two little guts, running out of some Riuer or Fish pond, and be well couered with earth.

To keepe
your
Graftes.

T H R A. I doe now greatly desire to heare you say some thing of Implastering, or Inoculation, that is, in Graffing with the bud or the leafe, which you call in Greeke *εμφυλλισμον*, which kinde of Graffing, I see those that are giuen to new fashions delight much in.

Of Implastering and
Inoculation.

M A R I V S. This is no new manner of Graffing, but we finde that it was vsed both of the Latines, and of the Greekes, when taking off a leafe or little bud, with some part of the rinde with him, we Graffe it into another bzaunch, from which we haue taken as much barke. This order (Columella saith) the husbandans in his daies were wont to call Implastering, or Inoculation: and befoze Columellas daies, Theophrastus in his Booke De causis Plantarum, doth shew the reason of Inoculation. Plinie doth say it was first learned of Dalwos, hiding of seeds in caues and holes of Trees. This kinde of Graffing, as Columella doth write, and our Gardners themselves confesse, is best to be vsed in Summer, about the twelfth of June: yet Didymus saith, he hath Graffed in this maner, and hath had good encrease with it in the spring time. And sith it is the daintiest kinde of Graffing, it is not to be vsed in all Trees, but onely in such as haue a strong, a moyst, and a sappy rinde, as the Oliue, the Peach and the Figge, which are full of milke, and haue a big barke. Of that Tree that you meane to Graffe, chosse the youngest and the fairest branches you can, and in them take the bud that is likeliest to grow, and marke it round about two inches square, so as the bud stand euen in the midst, and then with a Charpe knife cut it round about, and slaw off the rinde, taking good hãde you hurt not the bud, and take out the pãce. Afterwards, goe to the Tree that you meane to Graffe on,

and

and choſe likewise the faireſt bzaunch, and pare away the rind a lit^tle ſpace, and toyne in your budde ſo juſt, as the rindes may agree together ſo cloſe, as neither water noꝝ winde may enter in. You muſt looke that you hurt not the Wood, and that the rindes be of one thickenelle. When you haue this done, binde it by, ſo as you hurt not the bud: Then clay it ouer all, leauing libertie enough foꝝ the bud. Cut off all the ſpring that growes about it, that there be nothing left to draw away the Sappe, but that it may onely ſerue the Graffe: After one and twentie dayes, vnloose it, and take off your couering, and you ſhall ſee your bud incorporated in the bzaunch of a ſtrange tree. Columella ſpeaketh of an other ſort of Graſſing, to boꝝe a hole in a Tree with an Augur, either to the pithe, oꝝ the vttermoſt rinde, going ſomething ſloapewiſe downeward, and getting out all the chips cleane, take a Vine, oꝝ an arme of the beſt Vine, not cut from his olde mother, and paring away the ouer rinde, thruſt it faſt into the hole, being all moiſt and full of Sappe, leauing a bud oꝝ two onely vpon it: afterward, ſtoppe the hole well with Hoſſe and Clay, and commit it to the earth. In this ſort may you Graſſe Vines vpon Cines, ſo ſhall the bzaunch liue, being both nourished by his olde mother, and his new Father. Two yēre after, you ſhall cut off the new graſſed bzaunch, and the ſtocke wherein you graſſed, you ſhall ſawe off a little aboue the boꝝing, ſo ſhall the graſſe become the chiefeſt part of the plant. The like do our Countrymen, taking a bzaunch of a Beech a foote thicke: and when they haue cut it, and boꝝed it, they ſet in it the bzaunches of the beſt Pearre oꝝ Apple that they can get, ſetting the ſame in a very wet ground in March, and in the ſame Moneth the yēre after, taking vp the Beech, they cut it a ſunder with a ſaw betwixt the holes and the bzaunches: and euery pēce of ſtocke with his bzaunch, they ſet in very rich & fruitfull ground. There are ſome that brag of another kind of graſſing, not much vnlike to the ſoꝝmer, whereof notwithstanding, African in Conſtantine maketh mention, as tried in a Peach. They will a man to take the bzaunch of a Willow as big as your arme, and two Cubits in length, oꝝ moꝝe: this they would haue you to boꝝe through the mids, and after ſlipping off the bzaunches of a Peach as he ſtands, leauing onely the top vntouched, they would haue you to make the Peach paſſe through the Willow batte, and that

Wimble
Graſſing.

Another
manner of
Graſſing.

that done, to bow the Willow like a Bowe, setting both his ends into the earth, and so to binde the hole up with mosse, mortar and bands. The yéere after, when as the head of the Peach, hath ioyned himselfe with the pith of the Willow, that both the bodics are become one. You shall cut the Trée beneath, and remove it, and raise up the earth, so as you cover the Willow bow with the top of the Peach; and this shall bring you Peaches without stones. This kinde of Grafting must be done in moyst places, and the Willows must be holpen with often waterings, that the nature of the Trée may be of force. The kindes and manners of propagation, are declared by Plinie, who telleth of two kindes: Propagati-
on, and his
kindnesse. the first, wherein a branch of the Trée being bowed downe, and buried in a little furrow, and after two yéeres cut off, and the plant in the third yéere removed: which if you intend to carry any far distance off, it is best for you to burie your branches in Baskets, or earthen vessels, in which you may aptlyest carry them. And another more delicater way he speaketh of, which is to get the roote out of the very Trée, laying the branches in Baskets of earth, and by that meanes, obtayning rootes betwixt the very fruit and the tops, (soz by this meanes the roote is fetched from the very top, so farre they presume) and from thence fetch them; bring it as before: in which sozt you may also deal with Rose-marie and Hauine. Columella sheweth a way, how Slippes of all manner of Trées may be Grafted in what Trées you list.

T H R A. And some are also set of the Slippes, or Slutings: my selfe haue plucked a branch from a Mulberic Trée, and bruising the end a little with a Mallet, haue set it in the ground, and it hath growne to be a faire Trée. The like hath bene tryed (as they say) in Apples and Peares.

M A R T I N S. You say well, for Nature hath shewed vs, that they young sences, plucked from the rootes of the trées will grow: the youngest are best to be planted, and so to be pulled up as they may bring with them some part of their mothers bodie. In this sozt you may plant Pomegranates, Filberts, Apples, Scruffles, Medlars, Plomes, Figgcs, but specially Vines: and sometimes Cherries, and Hyzilles. Of the stocke and the branches are also planted the Almond, the Pearc, the Mulberic, the Orange, the Olive, the Quince, the Aune, and the Turkish Plome: which

The second Booke, entreating

which the oftner you remoue them the better they proue. Plinie sayth, the bzanches cut from the Tree, were at the first onely vsed for Hedges, Elder, Quinches, and Bziers medled together, as afterwards for vse, as the Poplar, the Alder, and the Willow, at this day wee set them where we best like. Hæde must be taken, that the Stockes, or the sets be of a good kinde, not crooked, knottie, nor forked, nor slenderer then that a man may well gripe with his hand, nor lesse then a foote in length.

T H R A. It remaineth now, that you speake of the setting of the fruit or kernell.

M A R I V S. Nature (as Plinie sayth) hath taught vs to set the Kernell, by the seedes deuoured of Birds, and moistened with the warmth of their entzales, and after voided in the boughes and rises of Trees: whereby wee finde many times a Plaine Tree growing out of a Wape, a Wap out of a Cherry, and a Cherry out of a Willow. Many Trees are set of the fruit, kernell, or stone, which grow pærely of themselues, by reason of the falling of the fruit: as Chestnuts, Hælnuts, and Walenuts. Columella sayth, they are the fruitfuller Trees that spring of their fruite, then those that are set of the stocke, or the bzanch. Some delight to be set in Trees, and not in the ground: when they haue no soyle of their stone, they liue in a stranger. Of the fruit or kernell, are planted Nuts, Almonds, Pistaces, Chestnuts, Damsons, Plums, Pineapples, Dates, Cypresse, Wapes, Apples, Peares, Maples, Fir trees, Cherries, Peaches, and Abzicocks: but set or planted, they proue to be the kindlier. Some of these doe grow in Grassing and other waies: for experience teacheth, that the Nut and the Terebinth are Grassed; and Demageron witnesseth as much: neither are all fruits, kernels, and stones set in like sort, as hereafter shall be siene. Some are layd in water before, others not: some lye threë dayes in hony and water, and at the fall of the leafe are buried in the ground till March: and then set Nuts are onely layd in moyst dung a day before, and of some in water and hony onely a night, lest the Charpnelte of the hony destroy the sprout. Some are set with their toppes standing upward, as the Chestnut: others downward, as the Almond, though this is not greatly to be regarded, si the wee see the fruite that falles from the Tree, or is
let

The keeping of plants.

let fall by Birdes, doth prosper best of any other.

THRA. I haue a wonderfull delight in the Impe Gardens of these Countreies, I pray you tell me how they be ordered.

MARIVS. The ordering of an Impe Garden may not be passed ouer, wherein as in a Parke, the young Plants are nourished. And because the Purse sometimes ought to be kinder, and tenderer then the Mother, a meete ground must be chosen for the purpose: that is, a ground drie, fat, and well laboured with the Hattocke, wherein the stranger may be well cherished, and very like vnto the soile, into which you meane to remoue them. The kernels, or stones, must not be altogether naked, but little covered with some part of the fruit, so shall they afterward endure the longer. They must be set a foote, or thereabouts a sunder: After two yeeres they must be remoued: and because their Rootes doe runne very deepe into the ground, they must be somewhat bent, or turned in, to the end they may spread abroad, and not runne downeward. Aboue all things, you must see if be free from stones and rubbish, well fenced against Poultrie, and not full of chinkes or clefts, that the Sunne burne not the tender rootes: they must be set a foote and a halfe a sunder, that they hurt not one the other with their nere growing. Among other euils, they will be full of Wormes, and therefore must be well raked and wæded: beside, growing ranke, they must be trimmed and proyned. Cato would haue them covered ouer with Lattuses vpon forkes, to let in the Sunne, and to keepe out the colde: Thus are the Kernels of Peares, Pine-apples, Nuts, Cypresse, and such others cherished. They must be gently watred for the first thre dayes, at the going downe of the Sunne, that they equally receiuing the water, may open the sooner. Zizipha, or Turkey Plumbs, Nuttes, Wall-nuts, and Chestnuts, Bayes, Cherries, Pistaces, Apples, Dates, Peares, Maples, Firres, Plumbs, and diuers others, are set of the stone, or kernels. In remouing of them, haue speciall regard, that they be set in the like soile, or in better; not from hot and forward grounds, into colde and backward, nor contrarie from these to the other. You must make your Furrowes so long before, if you can, that they be ouer-grown with good mould. Mago would haue them made a yeere before, that they may be well seasoned with the Sunne, and the weather: Or if you can-

The second Booke, entreating

not so, you must kindle fires in the middest of them two moneths afoze, and not to set them, but after a showze. The depth of their setting must be inASSE clay or hard ground, thre Cubites: and for Plumbe Trees a handfull moze. The Furrow must be made Furnace like, straight aboue, and broade in the bottome: and in blacke mould, two Cubites and a hand broade, being square coznered, neuer deeper than two foote and a halfe, nor broader then two foote broade, nor neuer of lesse depth, then a foote and a halfe, which in a wet ground will draw neere the water. Such as delight in the depth of the ground, are to be set the deeper, as the Olive, and the Olive: these and such like, must be set foure foote deepe, the others it sufficeth if they stand thre foote deepe. Some vse to set vnder their Rootes round little stones, both to containe, and conuay away the water: others lay grauell vnderneath them. The greater Trees are to be set toward the North and the West, the smaller toward the South and the East. Some will haue no Tree remoued vnder two yeres olde, or aboue thre: and others when they be of a yeres growth. Cato resisteth Virgils authozitie, that it is to great purpose to marke the standing of the Tree, as it grewe at the first, and to place it towards the same quarters of the heauen againe. Others obserue the contrarie in the Olive, and the Figge Tree, being of opinion that the leaues shall thereby be the thicker, and better defend the fruit, and not so sone fall: beside, the Figge Tree will be the better to be climbed vpon. Moreover, you must beware that by long taryng, the Rootes be not withered, nor the winde in the North when ye remoue them, wheroby many times they die, the husband not knowing the cause. Cato condemneth vtterly all manner of windes or stormes, in the remouing of Trees, and therefore it is to great good purpose to take them vp with the earth about them, and to couer the Rootes with a Turffe, and for this cause Cato would haue them to be carried in Baskets filled with earth vp to the toppe: the Tree must so be set, as it may stand in the middest of the Trench, and so great heed must be taken of the Rootes, that they may not be broken, nor mangled.

THRA. Let vs now goe forward with euery Tree in his order.

MARIVS. Among all Trees and Plants, the Vine by god The Vine.
right challenge th the Soueraignetie, seeing there is no plant bled
in husbandrie moze fruitfull and moze commodious then it, not
aloney for the beautifulnesse, and goodlinesse of the fruit, but al-
so for the easinesse he hath in growing, whereby he refuseth not
almost any kinde of Countrey in the whole world, except such as
are too extremely scorched with the burning heate of the Sunne,
or else too extremely frozen with the vehement colds, prospering
also as well in the plaine and champion Countrey, as it doth vpon
on the hilly and Mountaine Countrey: Likewise as well in the
stiffe and fast ground, as in the soft and mellow ground: And of-
tentimes in the Loamie and leane ground as in the fat and fog-
gie, and in the drye, as in the moist and mistic, yea, and in many
places, in the very Rockes it groweth most abundantly and most
fruitfully, as is to be seene and proued at this day about the Riuier
of Rhine in Germanie, and the Riuier of Mosell in France: and
aboue all this, it best abideth and beareth the contrarie disposition
of the heauens.

THRA. No doubt it is the most excellent Plant: But
whom doe you suppose to be the first Authour of the planting
of it: The common sort doe attribute the first inuention of it to
Bacchus.

MARIVS. We that are taught by Gods holy word, doe The in-
uention
of the
Vine.
know that it was first found out by the Patriarke Noah, immedi-
ately after the drowning of the world: It may be, the Vine was
befoze that time, though the planting and the vse thereof was
not then knowne. The Heathen both most falsly and very fond-
ly, as in many other things, doe giue the inuention of the same
vnto the God Bacchus. But Noah liued many yeres befoze ei-
ther Bacchus, Saturnus, or Vranus were bozne.

THRA. It is most likely so: But I wou'd faine know
whether the planting of Vines doth moze enrich the husband then
other husbandries doe.

MARIVS. About this question there is no little adoe among
the Writers of old, where there are some that preferre Grassing,
Tilling, and Woodsales farre aboue the Vines: and yet againe
there wants not great and learned men, that affirme the Vine
to be most gainefull: and declareth that olde fruitfulnessse of the

The second Booke, entreating

The Vineyard most gainefull. **Vines**, mentioned by Cato, Varro, and Columella, which vpon euery Acre yielded seauen hundred Gallons of Wine, and the Vineyards of Seneca, wherein he had vpon one Acre 1000. Gallons: when as in Corne ground, Pasture, or Wood land, if a man doe get vpon one Acre xx. s. a yeare, it is thought a great matter.

Cornfields and Vineyards compared. **THRA.** But the Vine asketh great charges, and great trauaile about it, and it is subiect to many mishaps, as the colde Frosts of Winter, the blastes and burning of Summer: and from the first appearing, till the third of May (which is the last decretorie day of the Vine) the hurt of the colde and Frost is feared. When it hath escaped this danger, then cometh a greater mischief, which lightly euery yeare doth great harme: for either with blastes in the Dogge daies, or for lacke of raine, the Grapes are withered and spoiled, or else with ouer-much raine they were solwe, and not ripe. Sundry other mishaps there happen, that the Vine is subiect to.

MARIVS. I graunt: so is your Corne likewise, for both it asketh great charges, and such casualties oftentimes vndoeth the poore Husbandman. For in all kinde of Husbandry, if there be not great diligence, and good skill imploied, there will be but small commoditie reaped. And especially the Vine requirerth great husbandry about it: for it is tender, and sone harmed, and therefore in choise of the Vineyard, there must be good haede, & both the nature of the COUNTRY, and the disposition of the heavens to well considered. Most men plant their Vines without any great care, or haede of them: and when they grow by, vse little diligence in the trimming of them, by which negligence, many times they wither befoze they be ripe. Others againe thinke it makes no great matter, what ground they bestow about it, and most times lay out for this purpose, the worst ground they haue, as though it would serue for this Plant that will serue for no other thing. Some againe reape all the commoditie they can the first yeares, not providing for farther time, and so complaine that their gaines doth neither answere their trauaile, nor their charges, whereas in vaine their owne folly and negligence is the cause: for if there be diligence & paines bestowed vpon it, as Columella proueth by many reasons, there is no husbandry so profitable, as the planting of Vines.

THRA. I doe not denie but that there is great profit in it, where the ground is meete for Vines, and not so fit for Corne: otherwise I thinke the sowing of Corne to be an eaiser matter, and speedier way to enrich the husbandman.

MARIVS. Surely as touching the easinesse of the husbandry, and the greatnesse of the gaine, the olde writers haue euer preferred the Vineyard afore the Corne field: for as Columella reporteth; S. Ierna writeth, that the labour of one man is sufficient for eight acres of Vines, or at the least for seauen: of the increase I haue spoken before.

THRA. Worry sir, at this day one man thinkes three Acres too much for him: but not to trouble your talke, I pray you goe forward with the husbandry of your Vines.

MARIVS. The ordering of the Wine-bearing-Vines, as the sorts of Vines are sundry, neither can they be contained in certaine numbers, for there is as many sorts, as there is of ground. Homer giueth the chiefest praise to the Wine of Maronia, and Pramniana. Virgill most commendeth Athenish wine: others the wine of Aninia, Lambrana, Candy, and Corlega, but I meane to speake of those that are commonly in our dayes. In Italy at this day they make most account of wine of Corlega, Roman, and Meylina. In Spaine the best esteeme the wine of S. Martine, of Ribodari, and Giberalter. In France the greatest praise is giuen to the wine of Orleans, Aniuo, and Greues: Germany began but of late to meddle with planting of Vines, for Varron writeth, that the Frenchmen and Germanes had in his time both Vines and Oliues: but at this day the Rhine, the Necker, the Mene, Mosel, and Danaw. may compare with any Countries, for goodnesse of their Vines.

THRA. I see that the Vines are diuersly dressed, otherwise in Italy, then in France, and otherwise in France then in Germany, every Countrey vsing his seuerall fashion.

MARIVS. True: for as Plinie, after Columella. teacheth, the Vine may be planted five sundry wayes: for eyther his branches are suffered to runne in safetie vpon the ground, or else without any stay growe byright, or hauing a stay or a prop set for them, they climbe by by it, or else runne by by a couple of stiffe props, called of Liwic a yoke, or else sustained with foure of those

The second Booke, entreating

poakes, which of the resemblance that they haue with the hollow gutters of a house, are sayd to be guttered: others againe suffered to runne vpon frames like Arbores, seruing to sit vnder, and are called Arbour Vines: others runne by by the walls of houses. Moreover, the poaked Vines, called in Greeke *Eniſeuſſoi*, are tyed together, and isyned with thre or foure props, as if they were poaked: some doe let them runne vpon trées, as commonly in Lumbardy, they are suffered to climbe vpon Cines, Willowes, and Ashes, where they greatly prosper: neyther doe they like all manner of trées, for they hate the Nut tree, the Bay, the Radish, and the Toll: as againe, they loue the Poplar, the Lime, the Willow, the Fig, & the Olive tree. The Vines that are poaked, or stayed by with props, receiue more ayre, and beare their fruit the higher, and ripe the better, but aske more trouble in the looking to: and these are so ordred, that they may be plowed, whereby they are the more fruitfull, because they may the oftner, and with the lesse charge be filled. The Vines that creep vpon the ground, make much Wine, but not (as Columella saith) so good.

T H R A. How to your ordying of them.

M A R I V S. First, I will speake of the ground, and of the digging of it, and after of the planting and cutting of them. And first you must take for a speciall note, that euery Vine will not agree with euery place, nor yield his Wine in like goodnesse, of such force is the qualitie of the ayre, neyther will all kinde of ground serue: For Columella doth counsaile to set the Vine in a wilde ground, rather then where Come or bulkes haue growne: for as for old Vineyards, it is most certaine, they are the worst places of all other to set new in; because the ground is matted, and as if were nettled with the remaines of the old rootes: neyther hath it lost the payson of the rotten and old trenching Rootes, where with the soile (glutted as it were with venime) is benumbed: and therefore the wilde and vntilled ground is chiefly to be chosen, which though it be ouer-growne with shrubbes and trées, may yet easily be ridde. If such wilde ground be not to be had, the best is the plaine champion land without trées: if neither such a ground, then the light and thine bushie ground, or Olive ground. The last and worst (as I saye) is the old rotten Vineyard, which if necessitie compell you to take, you must first rid the ground of all

Trees
which be
friends or
foes to the
Vine.

The orde-
ring of
Vines.

What
ground is
best for
the Vine.

the olde rotten rotes, and then couer it eyther with olde dung, or with the newest of any other kinde of manuring: the rotes being thus digged vp, must be layd vp together, and burned. After must the ground be considered, whether it be mellow and gentle: It is thought to be good, that is something grætie and grauelly, and full of small pebbles, so that it be mingled with fatte mould withall, which if it be not, is vtterly disallowed.

Dame *Ceres* loyes in heauy ground, and *Bacchus* in the light.

You shall perceue it to be massic and thicke, if being digged, and cast into the hole againe, it riseth ouer: if it scarcely fill the hole, it is a signe that it is light and thinne. The Flint, by the generall consent of Husbandmen, is counted a friend to the Vine, specially where it is well couered with good mould: for being cold and a keeper of moysture, it suffereth not the rotes to be scalded with the heate of Summer: so much, thst Columella doth will men to lay certaine stones about the sides of the Vine trees, so that they excede not the weight of five pound a pece: which as Virgill hath noted, keeps away the water in Winter, and the heate in Summer.

Hurle in the thirlic stone, or therein throw the nastie shells,

So do we see the banks of the Rhine being full of these stones, to yeeld an excellent good Wine: but the stones that lye aboue ground, are to be cast away: for in the Summer, being heated with the Sunne, they burne the Wine, and in the Winter they hurt them with their coldnesse, contrarie to those that lye in the bottome. But the best of all is the foote of an hill, which receiue the falling mould from the toppes, or the vally, that with ouerflowing of Riuers hath bene made rich. Neyther is Chalkie ground to be refused, though the Chalke of it selfe that Potters vse, is hurtfull to the Wine. The hungry sandy ground, the salt, bitter, and thirlic ground, is not meete for the Wine: yet the blacke and reddish sande, medled with some moyst earth, is of some allowed well enough. Percouer, neither ground too hotte, or too colde, too dry, nor too moyst, too slender, nor too stiffe, that will not suffer the raine to sinke, as meete is to be vscd for Vines, for it will easily gape and open, whereby the Sunne coming in at the crauelles, doeth burne the Rotes:

The second Booke, entreating

That againe which is ouerthinne, letting in as it were, by vents the Raine, the Sunne, and the Winde, both drie by the moysture of the roots: the thicke and stiffe ground is hardly to be labour'd; the fat ground subject to too much ranneisse, the leane ground to barrenesse: wherefore there must be an euen temperature amongst these extremities, as is required in our bodies, whose health is preferred by the equall medley of heate and colde, dryth and moysture, fullnesse and emptinesse, or thickenesse and thinnes: neither yet is this temperature in ground for Vines so iustly to be enend, but that there is required a moze inclining to the one part, as that the earth be moze hot then colde, moze drye then moyst, moze subtil then grosse, specially if the state of the Heauens agræ: againe, what quarter thereof the Vineyard ought to lye, it is an olde controuerſie, some like best the rising of the Sunne, some the West, some the South: Virgill misliketh the West, others againe thinke the best lying to be vpon the South. But in generall it is thought best in colde Countries, to haue it lye toward the South, in warme Countries vpon the East, in hot burning Countries, as Egypt & Barbarie, vpon the South. Plinie would haue the Vine himselſe stand towards the South, and his spring, or hootes towards the South. A fit ground, and well lying, being found out, must be diligently digged, donned, and waded: all vnprofitable weeds must be pulled vp, and throwen away, lest they should spring againe, and either corrupt the yong plants, or hinder the laborer.

T H R A. Before you come to trenching, I would gladly heare in what sort you plant your Vine, and what season is fittest for it.

M A R I V S. I will first speake of the season, and afterwards of the planting. The Vine is planted according to Virgils rule, in the fall of the leafe, but better in the Spring, if the weather be rapnie, or colde, or the ground be fat, champion, or a warriſh valley: and best in the fall of the leafe, if the weather be drye and warme, the ground drie and light, a barren, or a rugged hill. The time of planting, in the Spring (as Columella sayth) endureth fortie dayes, from the Ides of February, vntill the Equinoctial: and in the fall of the leafe, from the Ides of October, to the Kalends of December. Cassian in Constantine, being taught by
experience

What quarter of the heauen the Vine must lie against.

The time for planting of Vines.

experience, saith, in watric grounds you should rather plant in Autumn, when the leaues are fallne, and the plants after the Vintage deliuered of the burthen of their clusters, sound and strong, before they be nipped with the frosts, for then they best agree with the ground, nature applying her selfe wholly to the nourishing of the roote. The time of grafting Columella saith, is of some extended from the first of Nouember, to the first of June, till which time the shote or graffe may be preserved: but it is not well liked of him, who rather would haue it to be done in warmer weather, when the Winter is past, when both bud and rinde is naturally moued, and it safe from cold, that might annoy either the Grasse, or the Stocke: yet he granteth (when hast requireth) it may be done in the fall of the leafe, when as the temperature of the ayre, is not much vnlike to the Spring: for which purpose, you must choose a warme day, and no winde stirring. The Grasse must be round and sound, not full of pith; but of buds, and thicke of ioynts, the Tenant wherof must not excede thre inches, and smooth, and euen cutte: the stocke and the cleft must be well closed with clay and mosse. Those that grow toward the South, must be marked, which Virgill obseruing, saith:

Grafting
of Vines.

VWhat
Grasses
to be cho-
sen.

But on the hark, they also note the quarter of the skie,
The order how it stood, and grew, and where the South did lie.

The like is to be done with all other Trees. Of planting of Vines, there is two wayes, the one of the Roote, the other of the branch, or spray: The Roote is counted a great deale better then the branch or set, by reason of the forwardnesse, and vantage that it hath, in that it hath already taken roote. The Roote is set in stiffe ground, well digged and laboured, in a trench of thre foote, the set or spray, in a gentle and mellow ground: in drie ground, it is neither good to set the Roote, nor the Branch in a dry season: it is best to plant in the fall of the leafe in a hot season, and in a colde and moyst, in the Spring: in much wet you must set them thinner, in great dryeth, thicker: in what sort you shall make a soze Garden for Vines Palladius teacheth you. The set requireth a time to roote, and being remoued will beare the better fruit. The rootes doe beare fruit the second yeere, or sooner: the Sets, or Branches, scarce in the third or fourth yeere, though in some places sooner.

Didymus.

The second Booke, entreating

Didymus in Constantine teacheth an easie and a reasie way of planting the Dutckset, which is, to take of a strong and ten yere Vine, the longest and fairest branch, that groweth lowest, a foote from the ground, and laying it long in a Trench of a foote depth, to couer it with earth the space of foure ioynts, so that remaine in the top, excede not two or thre ioynts; and if the branch be so long, as it will serue for two burnings, you may make thereof two rootes. You must not suffer two rootes to runne vp vpon one stay, but allow euery roote his suppofter. The Branches, or Set that you meane to plant, you must cut from a very fruitfull and flourishing Vine, that hath bozne ripe and perfect good fruit, full of ioynts, and not any wayes tainted, but whole and sound. Of such you must chose your Sets, and not of young Vines, that are weake and feeble, but such as are in their chiefe state. Horesucre, you must gather your Set, not of the highest, nor the lowest, but from the middelt of the Vine: the Set must be round, smooth, full of knots and ioynts, and many little burgeons. Asone as you haue cut it off, looke that you set it: for better doth it agree with the ground, and sooner grow. If you are diuen to keepe them, burie them in the ground either lose, or losely bound: and if the time be long that you meane to keepe them, you must lay them in emptie barrells, strawing earth vnder them, and vpon them, that the earth may lie round about them: and the barrell you must stop closely with clay, that there enter neither winde nor aire, so shall you preserve them two moneths in their goodnesse. Such as are ouer drie, you must lay them in water foure and twentie houres afoze you set them, and you must set two Sets together, that though the one faile, the other may take: and if they both grow, you may take vp the lesser of them: you must not make a medley of sundry sorts, specially white and blacke together: but as Columella saith, must sort them severally. You must beware that the Sets haue not put out their springs, and that you set not a withered Set. Constantine would haue the Set something crooked, affirming that it will the sooner take roote. You must lay about them thre or foure stones, and then raise the earth, that it may equally with the dung be troden dolone: for the stones keepeth the earth firme, and as I said befoze, coletly the Roote. Both the ends of the Set you must annoint with Dre dung,

dung, for the killing of the wormes: as for the length, if it be full of ioynts, it may be the shorter, if it haue few ioynts, you must make it the longer, & yet not exceeding a foot in length, nor a shaft-man in shortnesse, the one for being burnt with ouer dyrcles in Sommer: the other, least being set too deepe, it be with great hardnesse taken vp, but this is for the leuell ground: for vpon hills, where the earth still falleth, you may haue them a foot and a hand breadth in length. Florentine would not haue the trench lesse then foure foote in depth: for being set shallow, they sooner decay, both for the want of sustentance, and great heat of the Sunne, which is thought to pierce foure foote into the ground: though some there bee that thinke thre foote sufficient for the plant. The Trenches for Vines, Virgill would not haue very deepe: but deeper a great deale for Trees. Such Vines as you meane shall runne vpon trees, you must plant thre cubits distant from the Tree: after wards, when they be well growen, and need to bee toynd with the Tree (which you shall perceiue by his thicknes) you shall lay it downe in length, & burie it, till it come within a foot of the Tree, suffering the remaine to goe at libertie, nipping off all the buds with your naile, except one or two, that it may the better prosper, which when it is growen vp, you must toyne by little and little to the Tree, that it may rest vpon it: which part of the Tree must be diligently propned, and the springs and sciences that grow out of the roote, must according to Florentinus, be cut cleane away. The trees, as much as may be, must be forced to the East and West, and both the Tree and the Vine, must haue the earth well digged, and dunged about them. In rich ground, you may suffer the Trees to growe in height, but in barren ground they must bee pulled at seauen or eyght foot, least all the substance of the Earth be soaked vp of the Tree. After your planting, you must digge the ground euery Moneth, and weed it, specially from the first of March, till the first of October: euery thirtieth day you must digge about the young plants, and plucke by the weedes, specially the grasse, which except it be cleane pluckt vp and cast away, though it be neuer so well covered, will spring againe, and so burne the plants, as they will make them barh soure and withered: the oftner you digge them, the more good you doe them.

The length of the sets.

The ordering of Vines after their planting.

Of digging and dunging of Vines.

When.

The second Booke, entreating

Of dig-
ging and
dunging
of Vines.

When the Grape beſignes to alter, you muſt in hand with your third digging, and when it is ripe, before none when it waſteth hot, and after none when the heate decreaſeth. you muſt digge it, and caſſe the duſt, which doing, defendeth the Grape both from the Sunne and the Piſſe. According to Virgils minde, the Vine muſt be digged and voided every ſoneth: ſome would have them digged all the Summer long, after every dew: others againe will not have them digged as long as they bud or burge, for hurting the ſprings, ſaying, that it is enough to digge them theſe in the yere, from the entring of the Sunne into Aries, till the riſing of the ſeaven Starres and the Dogge. Some againe would have it done from the Vintage before Winter, and from the Ides of Apull before it take, and then againe before it blowe, and likewiſe before the burning houres of the day. In ſome places when they have digged them, they doe not ſtraight waies cover them, but ſuffer the trenches to lye open all the Winter: in wet and raynie places they cover them ſoner, cloſing up the roots with earth, and ſtopping all the paſſages of the water. Some make the trenches very deepe, and ſome not paſſing a ſote deepe: and when they have done, they cover them aloft with Dre-dung, Shées dung, or Hogges dung, or of other Cattell: Pidgeons dung is the hottelt, and ſuch as cauſeth the Vine faſteſt to grow, but maketh the worſer Wine. The dung muſt not be layd cloſe to the Vine, but a little diſtant from it, whereby the rootes that ſpread abroad, may have ſome helpe of it, and the dung muſt not touch the rootes, for breaking of them: if there be no dung at hand, the ſtalkes of Beanes and other Pulſe, will well ſerve the turne, which both defendeth the Vine from froſt and cold, and keepes them likewiſe from noyſome wormes: the kernels, and the ſtalkes of the Grapes, doe likewiſe ſupplie the want of dung; but the beſt of all, is old ſtale Wine. The plants of a yere, or two yere old, and ſo forth, till five yeres, muſt be diſcreetly digged, and dunged, according to their ſtate: in ſandy ground, the beſt dung is of Shéepe and Goates: and in ſuch ſort you muſt digge the ground, that the earth that lyeth highelt, be caſt to the bot-
tome, and that which was at the bottome, be layd aloft: ſo ſhall that that was dry, by the moyſture within, be helped, and that which was moyſt and ſtiffe by the heate above, be loſened. You muſt

What
dung is
beſt for
Vines.

VWhere
the dung
muſt be
layde.

Piſſe, the
beſt dung.

The order
of digging
or ſtirring
the ground

must also see that there be no holes nor pits in the Vineyard, but that it lie euen. When you haue thus digged it, and that the Vines haue taken roote the first yere, the rootes that grow about must be cut away with a sharpe knife: for the Vine, if it be suffered to roote euery way, it hindereth the deepe downe growing of the roote. The Vines that are now of two yeres growth, we must digge and trench about two foote deepe, and thre foote broad, according to the rule of Socion. Of those Vines that climbe vpon Trees, you must likewise cut off the springs that runne among the rootes of the Tree, lest the small roote tangling with the greater, be strangled: and therefore you must leaue some little space betwixt the Vine and the Tree. Often digging causeth great fruitfulnessse: good heed must be taken, that the plants be not hurt in the digging: also it must be digged before his flourishing, or shooting out of his leaues: for as immediately thereafterwithall he beginneth to thrust out his fruit, so hee that diggeth after the comming forth thereof, loseth much fruit with the violent shaking, and therefore must digge the timelier. Cutting and dressing of the rootes, you must begin in hand with at the Ides of October: so that they may be trimmed and dispatched afore Winter. After Winter digge about the rootes that you haue dressed: and before the Sunne enter the Equinoctium, leuell the rootes that you haue trimmed. After the Ides of Aprill, raise vp the earth about your Vine: in Summer let the ground be oftentimes harrowed. After the Ides of October (as I haue said) before the colds come in, you must dresse the rootes of your Vines, which labour layeth open the Summer springs, which the good husbandman cutteth away with his knife: for if you suffer them to grow, the rootes that grow downe will perish, and it happeneth that the rootes spread all about, which will be subiect both to cold and heat: and therefore whatsoeuer is without a foot and a halfe, is to be cut off, but so, as you hurt not the principall. You must make this riddance of the rootes at euery fall of the lease, for the first fiue yeres, till the Vine be full grown: after, you must dresse them euery fourth yere: such Vines as are ioyned with Trees, for the vnhandsomnesse, cannot be thus handled. Vines and Trees, the sooner their rootes bee thus dressed, the stronger and weightier they will bee: but such as grow

Dressing
of Vines.

The second Booke, entreating

grow upon the sides of hills, must so be dressed, as the upper roots neare to the stocke may spread largely, and vnderneath towards the foote of the hill the earth must be banked to keepe the water and the mould the better. The old Vine must not haue his roots medled withall for withering, nor be plowed, for breaking of them, but the earth a little loosed with a Mattocke, and when you haue thus dressed the roote, lay dung about it. After this ridding of the rootes, then followeth proyning, or cutting, whereby the whole Vine is brought to one twigge, and that also cut within two ioynts of the earth: which cutting must not be in the ioynt, but betwixt the ioynts, with a slope cut, for auoiding the water: neither must the cut bee on that side that the budde comes out of; but on the contrarie, lest with his blöding hee kill the budde. Columella appointeth two seasons for the cutting of Vines, the spring, and the fall of the lease, iudging in colde Countries the cutting in the Spring to be best, and in hot Countries where the Winters be milde, the fall of the lease: at which time both Trees and Plants, by the deuine and euerlasting appointment of God, yield by their fruit and their lease. Yet must not your sets be too nearely cut, except they be very feeble: but the first yere they be set they must be holpen with often digging, and pulling off the leaues monethly, while they beare, that they may grow the better. Phamphilus in Constantine, declareth the time of cutting, or proyning, to begin in February, or March, from the fifteenth of February till the twentieth of March: some (he saith) thought good to cut them immediately after the gathering of the Grapes, lest by blöding in the spring they loose their sustentance: though being cut in the fall of the lease, it springeth the sooner in the spring, and if the colde of frost happen to come, it is spoyled. Therefore in colde Countries, it were better to proyne it a little, then to cut it thoroughly, that is, to suffer the principall springs and branches to grow. Againe, it is very necessary to cut them in the Spring: the cuts must be made with a very sharpe knife: that they may be smooth, and that the water may not stand in them, to the engendring of wormes, and corrupting of the Vine: you must cut them round, so will the cut be sooner growen out againe: but Plinie would haue them slope-wise, for the better auoiding of the water. The branches that be broad, old, crooked, or wyzthen, cut
away,

away, and set yong and better in their place. You must make an end of your cutting with as much speede as you may: from the Ides of December, till the Ides of January, you must not touch your Vines with a knife: for Columella witnesseth, that Vines in winter may not be cut. In cutting, remember well to cut it betwixt two ioynts, for if you cut it in the ioynt, you spill it: let the cut be alwayes downeward, so shall it be safe both from Sunne and weather. You must not cut them very earely, but when the Sun hath drunke by the frost, or the dew, & warmed the branch: the springs of the sets the first yere, must be cut with good discretion, nor suffered to grow too ranke, nor cut too neare, but making the olde set to suffer a spring or two to grow out.

Next unto cutting, followeth the propping, or supporting of the Vine: and it is best for the yong and tender Vine not to be stayed by with any strong stay, but with some small thing at the first, and while it is yong, it must be daintely tyed to the stay with small twigs of Willow, Elm, Brome, Rushes, or Straw: this latter binding, is thought to be best, for the twigs when they ware drie doe pierce and hurt the rinde. There is an hearbe, which because of his aptnes for tying of Vines, the Sicillians call *ἀμπελοστέμνυρ*. The best staves for Vines, as Plinie saith, are made of Willow, Oke, Kæd, Juniper, Cypressse and Elder. And in another place, hee preferreth the Chestnut for this purpose, aboue all the rest. The best for the Vine, is the Kæde, which well endureth five yeres. Gelding of the leaues, & cutting the Vine, is almost in one

Propping
of Vines.

manner: the gelding of the leaues, or bzaunches, must be done twice a yere, to the end that the superfluous springs & leaues may be plucked off. The first (as Plinie writeth) must be dons within ten daies after the Ides of May, before the Vine begin to flower: for about the tenth of June, both the Vine & the Wheat, the two noble fruits, do flower. Of the second time, the opinions are sundry, for some suppose it best to plucke off the leaues & bzaunches as soone as it hath left flowering: others, when the fruit is full ripe. The superfluous springs being yong & tender, are to be taken away, that the Vine may be moze at libertie, and through blowen with the winde. This gelding, or cutting away the superfluous bzaunches & leaues is as needful as the propping: for both the fruit doth prosper the better, & the propping the next yere will be the handsommer,

Gelding
or pluck-
ing off of
leaues.

and

The second Booke, entreating

and the Vine will be the lesse full of galles: for that which is cut being grone and tender, doth the sower and the soundlier recover himselfe, and the Grape ripeth the better. Ten daies befoze the Vine beginnes to blowe, see that you geld it in this sort: Cut off all the superfluous branches, both on the toppe, and on the sides, but meddle not where the clusters grow, strike off the tops of the branches for growing too ranke: such Grapes as grow towards the South, or the West, leave them their branches to defend them from the heate of the Sunne: cut away most from the young Vine, for euer-burdening him. After the heate of the Sunne beginneth to fade, away with the leaues, for hindring the Grapes of their riping: and while the Grape is a blowing, busie your selfe with digging about it. Such Vines, as with thicknes of their leaues corrupteth their fruit, are to be rid of their superfluous branches and leaues a Moneth befoze the gathering of your Grapes, that the winde may blow the better through them: but the leaues that grow aloft in the very top, must not be meddled with, but left as a defence, and shadow against the heat of the Sunne: but if so be, the end of Summer be given to much raine, and that the Grapes swell in greatnesse, then hardly plucke off the leaues from the top also.

T H R A. You haue told vs of a great deale of labour about Vines.

M A R I V S. The Vine keeper must often go about his Vines, and set vp his props, and make euen his yokes.

T H R A. One thing I pray you, let me heare more, the signes and tokens of the ripenesse: for as I vnderstand, we may not be too busie in gathering them too soone, nor vse any lingring after they be ripe, without great harme.

M A R I V S. You say true: for being gathered befoze they be ripe, they will make but small Wine, and not durable. And againe, if you suffer them too long, you shall not onely hurt the Vine with the ouer-long bearing of her burden, but also if hable or frost happen to come, you put your Vine in great danger. Democritus writeth, that the Grape endureth in his ripenesse not aboue fixe dayes, and therfoze the iudgement of his ripenesse, is not alonely to be giuen vpon the sight, but vpon his taste, though Columella thinketh there can be no certaine iudgement giuen

giuen of the taste. But if the stones doe change their colour, and be no longer greene, but be almost blacke, it is a signe the Grape is ripe. Some againe do presse the Grape betwixt their fingers, & if they see the stone to slip out smooth, without any thing cleauing to it, they thinke them meete to be gathered; but if they come out with some part of the Grape cleauing to them, they count them not to be ripe. Others proue them in this sort: Out of a very thicke cluster they take a Grape, and as they behold the cluster well, wherein they see no change, they take it for a token of ripenesse. You must gather your Grapes, the Moone being in Cancer, Leo, Libra, Scorpius, Capricorne, or Aquari, and vnderneath the earth.

THRA. Is there no way to make the Grape ripe speedily?

MARIVS. Plinie teacheth, to rubbe ouer the Kestes with tart Vinegar, and very old Wine, and thus to be often digged, and covered.

THRA. What order haue you for preseruing of your Grapes when they be gathered?

MARIVS. Some keepe them hanged by in the roose of chambers, and some in earthen pots, close covered with wooden vessels. Palladius sheweth away how to keepe them vpon the Vine, till the Spring.

THRA. I pray you procéde with the other fruit Trees of your Orchard.

MARIVS. Among other fruit trees next vnto the Vine (as The Oliue Columella saith) the chiefe place is giuen to the Oliue, in Latine Olea. Of all other Plants it requireth least trauaile and charges, where as the Vine requireth most: and though it beare not euery yeere, but euery other yeere, yet is he to be bozne with all, because he asketh neither cost nor labour: and if you bestow any vpon him, he recompenseth it thoroughly, with the abundance of his fruite. And since there is so great profit and comoditie in this tree, and that the vles of it are so many, and so needefull, it is good reason to be diligent and carefull about it: he loueth a ground neither too high, nor too low, but rather the side of a hill, such as is the most part of Italie and Spaine: for in such ground the extreame heate of the Sunne, is something mollified with the cold blasts of the winde: for in Oliue trees (as Plinie saith) the soyle and the climate is of great importance: it delighteth

The second Booke, entreating

in a warme, and a drie ayre; and therfore in Barbary, Sicil, Andalusia, sundry parts of Italie, specially Campania, it prospereth wonderfully: it likeith not too great heat, nor too much cold. And therfore in hot Countries, it ioyneth vpon the North side of the hilles, and in cold, vpon the South side. It is thought, that if it stand aboue threescore miles from the Sea, that it cyther dyeth, or groweth not fruitfull. The best ground is the grauelly ground, hauing aloft a little chalke mingled with sand: it is also good ground where the sand or grauell is medled with rich mould: pea, the stiff ground, if it be rich and liney, doth very well agree with this tree. Chalkie ground is vtterly to be refused, and watry and marish ground worst of all. The like is a barraine sand, and hungry land: but you may set it well in Cozue ground, where either the Wilding or Halkyone hath growne: but betwixt the Dake and it there is great hatred, for if the Dake groweth nere, it lieth away, and shynketh towards the earth: and though you cut downe the Dake, yet the very rootes poysoneth and killeth the poze Olive. The like some affirme of the Trees called Cerrus, and Esculus: for where they be paled by, if you set the Olive, he dieth: so doth it (as Plinie saith) if it chaunce to be baised of the Goate. On the other side, betwixt the Olive and the Vine there is great friendship and loue: and it is said, that if you graffe the Olive vpon the Vine, it will beare a fruit that shalbe halfe Grape, and halfe Olive, called Vuolea, an Olive-Grape. There are sundry wayes of planting of Olives: some take the biggost branches from the Trees, and halwing off the youngest plants of two cubits in length, they set them orderly in the ground: some sette the whole Tree together: some againe cutting off the tops, and all the branches, set the stocke about the rising of the Starre Arcturus. Many make them Impe Gardens in good ground and mellow, such as is commonly the blacke moude: herein they set the young branches the lowest, and the sayest, two or three inches in thickeesse, and very fertill, which they gather not from the body of the Tree, but from the newest and latest boughes. These they cut into pretty Settes of a foote and a halfe in length, taking good heed that they hurt not the riade, and paring the ends very smathe with a sharpe Knife, and marking them with redde Oker, that they may know which way they stand afoze,

and

and so setting the lowest part into the ground, and the highest towards the heaven, they put them in the ground, and so they grow the faster, & beare the better: for if you should set them with the lower end upward, they would either hardly grow, or prove unfruitfull: and therefore they haue a regard of the setting of them. You must beside, before you set them, rubbe ouer both the toppe and the sote with doving mingled with Ashes, and so set them deepe in the ground, couering them foure fingers thicke with rotten mould. You may choose whether you will sette them all vnder the ground, or set some part within the ground, and suffer the rest to appeare aboue the ground: those that be sette all within the ground, neede not to be marked, but such as shall stand with one part aboue the ground. Dydimus would haue them so set as they may appeare foure fingers aboue the ground, and then to make a little trench for the receiuing of the water: and this manner of planting with the boughs, is of Dydimus best liked. Where you mean to plant, you must purge the ground of all other plants, bushes and woodes: and the trenches must so be made, as with the winde, the sunne and raine, it may be mellowed & made crumbling, that the plants may the sooner take roote. If your businesse require haste, you must a moneth or two before, burne in the trenches either sticks or reede, or such things as will easilie take fire: and this you must do diuers daies together. Your trenches must be three cubits, or thereabout in depth, & 40. cubits asunder, whereby the trees may haue ayre enough: the first second, and the third yeere, the earth must be trimmed with often raking: the first two yeeres you must not meddle with propping: the third yeere, you must leaue vpon euery one a couple of branches, & often rake your Impe garden: the fourth yeere, you shall of the two branches cut away the weaker: being thus ordered, in the fift yeere they will be meet to be remoued: the stocke that is as big as a mans arme, is best to be remoued: let it stand but a little aboue the ground, so that it prosper the better. Before you remoue it, marke the part that stow South with a peece of Oker, that you may set it in like maner againe. You must first dig the trenched ground with Mattocks, & after turne in stone-plowed earth, & sow it with Barley: if there be any water standing in them, you must let it out, and cast in a few small stones, and so setting your Settes,

cast in a little dung. After the tenth of June, when the ground gapes with the heate of the Sunne, you must take hiede that the Sunne pierce not through the clefts to the roote. From the entering of the Sunne into Libra, you must ridde the rootes of all superfluous springs: and if the Tree grow upon the edge of a hill, you must with little gutters draw away the muddy water. The dung must be cast on at the fall of the leafe, that being mingled in Winter with the mould, it may keepe the rootes of the trees warme. The mother of Oyle must be polized upon the great ones, and the mosse must be cut off with an Iron Instrument, or else it will yield you no fruit. Also after certaine yeeres, you must cut and loppe your Oliue trees: for it is an old prouerbe, That who so ploweth his Oliue Garden, craueth fruit: who dungeth it, molweth fruit: who cutteth the trees, forceth fruit. In the Oliue Tree you shall sometime haue one branch more gallant then his fellowes, which if you cut not away, you discourage all the rest. The Oliue is also grafted in the wilde Oliue, specially betwixt the rinde and the wood, and by implastring: others graffe it in the roote, and when it hath taken, they pull vp a parcell of the roote withall, and remoue it as they doe other plants. Those Oliues that haue the thickest barks, are grafted in the barke. The time of Grafting them, is from the entering of the Sunne into Aries, and with some from the xxij. of May, till the first of June. The time of gathering of Oliues, is when the greater part of halfe the fruit wareth black, and in faire weather: the riper the Oliue is, the fatter will be the Oyle. In gathering of Oliues, there is more cunning in making Oyle, then in making Wine: the lesser Oliues serue for Oyle, the greater for meate. There is sundry sorts of Oyle made of an Oliue: the first of all is raw, and pleasantest in tast: the first streame that comes from the presse is best, and so in order. The best Oyle is about Venafri in Itale, & Licinia in Spaine: the next in goodnesse, in Prouence, except in the fruitfull parts of Barbary. The Oliues that you may come by with your hands, you must eather upon the ground, or with Ladders gather, and not beat them downe: for those that are beaten downe wither, and yield not so much Oyle as the other: and better is the Oliue that is gathered with the bare hand, then with gloues: there is an old law for Oliues, Bruise not the Oliue, nor beate him. Those that
 passe

passe the reach of the hand, must be rather beaten downe with
 Rædes then Dowles: the Dyle is increased from the rising of the
 Berward, to the xvi. of the kalends of October: after, the stone
 and the meat doe grow. Of Dyle, some part serueth for meat, and
 other for the sotopling of the body: and therefore, as Varro saith,
 it accompanieth his maister, not onely to the Bath, but also to the
 field, or wheresoeuer he goeth. The Oliue whereof you make
 your Dyle, must be taken from the ground: and if it be soule, must
 be washed: for the dyping, thre dayes is sufficient: if it be frosty
 weather, they must be pressed the fourth day: euery first heape
 must be put in earthen pots, and Dyle vessels, where with hard
 and rough stones they are grinded. The gathered Oliue, if it lye
 too long in heapes, putrifieth by reason of heat, & makes vnsauery
 Dyle. Pils are more handsome for the making of Dyle, then the
 trough and the scote: for the Pils may be handled with great dis-
 cretion: the whole store may be rayed or let downe, according
 to the quantitie of the Berry, least the stones which would marre
 the taste of the Dyle should be broken. The Presses chiefly, and
 the Dyle houses ought to be warme, for the speedier running of
 the Dyle, which with cold would make the longer stay. And sith
 heat and warmth is so needfull, you must provide that your house
 lye toward the Sunne, so shall you haue neither flame nor fire,
 which with smoke or scote, may corrupt the tast of your Dyle.
 The lawes and order of gathering, and bestowing of Oliue, hath
 Cato described: the manner of preserving them is declared by
 Columella, which were too much for me to speake at this time.

T H R A. Goe on then, and let vs heare what you can say of
 Apple trees: whose vse is more commonly knowne vnto vs.

M A R I V S. The Apple, called in Latine Pomum. Apples.
 are that put this difference betwixt the Apple and the Putte,
 that whatsoeuer fruit is to be eaten soft without, and hard with-
 in, is an Apple, and the contrarie a Putte. Pomum generally
 spoken, is to be vnderstood of all that the Grækes comprehended
 in the word, *ἄπυλον*, as Peaches, Quinces, and Peares, where-
 vnto the Lawyer agreeth: but in this place I speake of Apples,
 according to the common phrase: as for Quinces, Pomegranates,
 and Turkie Plomes, I will speake of in their due places. There
 are such sundry sorts of Apples, differing both in shape and sauour,

The second Booke, entreating

as are scarcely to be numbr'd. In the olde time the chiefeſt Apples were Septians, very great and round, Martians, Claudians, Matians, and Appians, ſo called of their firſt founders: ſome againe toke their names of their Countreies, as Camerians, and Grecians: ſo others of their colours, as red, languine, ſilken, and golden. We haue at this day that are chiefe in price the Phippen, the Romet, the Pomeroyall, the Parigold, with a great number of others that were too long to ſpeake of. There is but one manner of planting and graſſing of them all, ſauing that the Peach, the Lemon, the Apricot, the Quince, and the Cytron, which are all, of Dioſcorides, accounted in the number of Apples, require a little more diligent care, as ſhall be ſaid hereafter, then the others, for they are all both planted and graſſed: the manner of an Impe Garden Care deſcribeth. Apple trees are ſet either in February, or in March: or if the Countrey be hot and dry, in October and November. But all kindes of Apples doe better proſper by graſſing, and inoculation, or ſubudding, as I ſaid beſore about March or Aprill, or what time ſo euer the ſap be in the rinde. They are alſo graſſed by implaſtring, about the tenth of June: though ſome (as they ſay) haue had good ſucceſſe in doing it after the entrance of the Summe into Aries, as I haue ſaid beſore, where I ſpake of implaſtring and Graſſing. The Apple is commonly Graſſed vpon the Crab ſtocke, or vpon the Bramble, being firſt planted, and the yere after cut off within a foote of the earth: vpon this ſtocke you may Graſſe (as I ſaid) the tender young Graſſes of any Apples. Palladius ſaith, you may graſſe the Apple vpon the Berry, the Hawthorne, Plumb tree, Seruiſſe tree, Peach, Plane tree, Poplar, Willow, and Pear: but in ſuch difference of Countreies, we can ſet downe no certaine order for them all: and therefore as farre as mine owne experience, and the knowledge that I haue learned of others will ſtretch, I will gladly ſhew you. There are that according to the olde order, doe Graſſe the Apple either vpon a wilde Berry, or vpon a Quince, whereof they haue a moſt excellent fruit, called of the olde Writers Melimela. If you Graſſe vpon the Plane tree, you ſhall haue a red fruit: you may alſo well Graſſe your Apple vpon the Damſon tree; and if you Graſſe vpon the Cytron, you ſhall haue them beare, as Diophanes ſaith, fruit almoſt all the yere.

yeers long. The Apple longeth a fat, and a good ground, well watered rather by nature, then by industrie. In mountaine Countreies, they must alwayes be set toward the South: it prospereth well enough, so it be something holpen with the Sunne, neither doe they refuse either rough or marriſh grounds. A leane and a barraine soyle bringeth out woyme-eaten, and falling fruit: the noysome Wormes are destroyed with Hogges dung, mingled with mans urine, and powred vpon the rootes. And if the tree be very full of Wormes, being scraped downe with a brazen scraper, they neuer come againe, if the place whence you scraped them, be rubbed ouer with Bullocks dung: some adde vnto urine Goates dung, and powre vpon the rootes the Lees of olde wine. The tree that is sicke, or prospereth not, is holpen being watered with Asse dung, and water five dayes: they must be often watered at the setting of the Sunne, till the Spring be come out. Plinie writeth, that the water wherein Lupines hath bene sod powred vpon the tree, doth the fruit good. They say, if the tree be much watered with urine, the fruit will be red. Others againe set vnder their Trees Rokes, thinking thereby to haue their Apples red. Apple Trees (as I said before) must be set euery sort by themselves, as Columella biddeth, leaſt the small trees be hurt of the great, because they be not all of one growth, or strength. Beside, you must set them very thin, that they may haue roome to shoot out their branches: For if you set them thick, they will neuer beare wel, & therefore you must set them forty, or at the least thirty foot a sunder: The Apple declareth his ripenes, by the blacknes of his kernels. They are gathered after the fourteenth of September, or there about, according to their kinde, and not before the Moon be seauentene daies old, in faire weather, and in the after none: Those that fall from the tree, must be laid by themselves: it is better to pull them, then to shake them, leaſt they be bruised in their falling. They are kept in faire lofts, vaults, or cold places, with windows opening toward the North, which in faire weather must be set wide open: & therefore Varro would haue all Apple lofts haue their windows North, that they may receiue the North aire: the South winds must be shut out: The blasts of the North winde, doth make them wrinkled & rugged: they must be laid thin vpon Straw, Chaffe, or Mats. I had an Apple brought me out of

Against
hurtfull
wormes.

To keepe
Apples.

Holland, that endured threë yères : I haue a tree of them here in this Orchard of his colour, called a Greening. You must lay euery sort by themselves, lest sundry sorts lying together, they sooner rotte. Some vse to lay them in Put leaues, which both giueth them good colour, and good smell. They are also kept from rotting, if they be layd in Barley or Wheate. Palladius would haue them kept in earthen vessels close stopped, in Sesters, or in Caves : Apuleius in Constantine, would haue euery Apple wrapped in Put leaues, and so laid by : a great sort of waies beside of keeping them, you shall read in diuers Authours. Some to auoide the hurt of the frost, vse to couer them with wette Linnen cloth, which being frozen, the fruit that lyeth vnder it, is preserved. Your Apples must be so layd by as the stalkes stand downward : neither must you touch any, but such as you neede. Apples are hurtfull to bearing cattell, so as the saour causeth them to tyze, as Lucian in his Ase witnesseth : the like is written of Peares : the remedy, they say, is to let them eate some of the fruit afoze. Of Apples, with certaine Hils for the purpose, they make a drinke called Cider, and a small drinke beside with water, and the refuse of the Apples strained, a good drinke to cole the thirst of the poore labourer. A kinde of Viniger also they make of Crabs, and some Apples, which lying in heape together threë or foure daies, they afterwards put into a Pipe or Tunne, wherewith they mingle Spring water, or Kayne water, and so is it suffered to stand close couered thirtie daies, and after taking out what Viniger they neede, they put in againe as much water. The Peare, in Latine Pirus, challengeth the next place : it is one of the chiefest beauties of the Orchard. The Apple tree spreadeth in broad branches : the Peare tree riseth in height, & delighteth in a rich and a moist ground : it doth grow of the kernell, and of the Pippin, but is a great while before it come to good : and when it is growne, it degenerateth from them his old good Nature, and therefore it is better to take the wilde plants, and to set them in their ground in Nouember, and when they be well rooted, you may graffe vpon them. It is said, that it so prospereth with often digging, and much moisture, as it neuer loseth his flowze. You shall doe great good vnto it, if euery other yære you bestow some dung vpon it. Dre dung is thought to make great and massie

The peare.

Peares :

Peares : some put twa little Ashes to make their taste the pleasanter. They are not alonely planted of the rootes, but also the very little twigs, being plucked from the roote, will grow. If you will set young plants, let them be three yere old, or at the least two yere old befoze you set them. Some againe take the sayrest branches they finde vpon the tree, and set them as they doe the Olive. The time of grafting the Peare, is March and Aprill : Plinie saith, you may well graffe it when the blossome is on it, which I my selfe haue tryed to be true. It is graffed vpon the Quince the Almond tree, the Pomegranate, the Apple, and the Mulberie tree : if you graffe vpon the Mulberie, your Peare shall be red. Virgill teacheth to graffe it vpon an Ashe, whereas indeede it will agree with any stock: the Graffe must be the growth of a yere, and afoze it be graffed, clered of all leaues and tender parts. And if you would haue the fruit pleasant, and the tree fruitfull, you shall boare a hole through the stocke close by the ground, and driuing in an Oken or a Beechen pinne, coner it by with earth : if the tree prosper not, wash the rootes, and water them with the lees of old Wine fiftene daies, so shall it beare the better and pleasanter fruit. It shall neuer be hurt with wormes, if when yee plant it, you doe annoint it with the Gaule of an Oxe: if the tree (whose rootes haue bene cut) seeme not to prosper, Palladius his remedy is, to pierce the roote thozow, and to driue in a pinne, made either of Oake or Plumtree. If your Peares be stone, and choake Peares, dig by the earth from the rootes, cleanse them of stones, and sift in good new mould againe in the place : let your Peare trees stand thirtie foote asunder, or little lesse : your Apple tree farther, as I haue said. They are kept preserved sundry waies, some dipping the stalks in boyling Pitch, doe after wards hang them by, and so keepe them : others keepe them in new boyled Wine, or else in a close vessel : others in sand, some in stocks, and some againe concred with wheate, or chaffe : some are of opinion, there is no kinde of fruit; but may be preserved in honey. Of Peares Palladius teacheth, as of Apples, to make both drinke and sause, the iuyce being prest out with the presse: women haue a pretty dish made of Peares for their religious fasts, called Callimonicale. Next in order, after Apples and Peares, cometh the Quince, which was first by Cato called Coroneum, the

To keepe
peares,

The
Quines.

Grakes

The second Booke, entreating

Greeks call it, *ΕΥΔΑΜΙΟΝ*, of the Citie Cydon, from whence it was first brought: the Italians, Meic cotogne, the Spaniards, Membrillo: the French men, Vn coiginer: both the Greeks and Virgil, call them of the colour χρυσομίλα, Golden Apples, & Struthia, which kinde (though they differ a little) are of this sort: for Columella speaketh of three sorts of Quinces, Struthia, Chrysomela, and Muctea, which all serue both for health and pleasure. They are planted after the same manner that Peares and Cherries are: some affirme, that the settes that haue bene set in March, or in February, haue taken such roote, as they haue borne fruit the yere after. They grow well in cold and moyst Countries, in plaine & hillie grounds. In hot dry Countries, you must set them in October. Many set them with the tops and the set, but neither of them both is very good: and being set of science, they sone degenerate. They are better grafted in the stock then in the barke, and that in February or March. They receiue into their stocks, the Graftes (in a manner) of all manner of trees, the Pomegranate, the Seruisse, all the sorts of Apples, and make the fruit the better. The Quince tree must be set in that order, that in the shaking of the winde, they drop not one vpon the other. When it is young or newly planted, it is helped with dung, or better with Ashes: they must be watred as often as the season is very drie, and digged about continually: in hot Countries in October, or Nouember: in cold Countries, in Februarie or March: for if you doe not often dig about them, they will either be barraine, or beare naughtie fruit: they must be proyned, cut, and ridde of all encombzaunces. If the tree be sicke, or prosper not well, the roote must be watred with the mother of Dyle, mingled with the like quantitie of water, as Didymus in Constantine saith, or vnleckt Lime mingled with chalke, or Rozen and Tarre must be powdered vpon the rootes: you shall gather them in a fayre day, being sound and vnspotted, and very ripe, and in the wane of the Moone. They are best kept coffened betwixt two hollow Tiles, well closed on euery side with Clay: some lay them onely in dry places, where no winde commeth: others keepe them in Chaffe and Wheate, many in Heney: some in Wine, and maketh the Wine more pleasant. Democritus biddeth you beware, that you lay them not nere other fruit, because with the apple they will corrupt them.

To keepe
Quinces.

Thers

There is also made a kinde of Wine of Quinces (being beaten and pressed) and a little Honey & Oyle put into it: our Countymen make of them a precious Conserue, and Parmelade, being congealed with long seething, and boyled with Sugar, Wine, and Spices. I will now shew you of the Medlar, which the Latines call *Mespilus*, the Italians *Mespilo*, the Spaniards *Mespero*, the ^{The Med-}Frenchmen *Mesplier*, or *Nessier*, the Dutchmen *Mespelen*: this ^{lar.} Tree is also of the number of Apple trees, and Pearre trees: it is planted in like manner as the Quince is: it delighteth in hot places, but well watered, though it doe well enough in cold. We haue seene it prosper very well among Oakes, and Woods: for we haue seene great Woods of them growing among Oakes, that haue yeerely yielded a great deal of money. Some say, it is planted of the science, in March or Nouember, in a well doungeed ground and mellow, so that both the ends be rubbed ouer with dung. It is also set of the stone, but then it is very long before it come to any thing: it is excellently well grafted in the Bramble, the the Pirrie, or the Apple. The Medlars that you meane to keepe, must be gathered before they be ripe: and being suffered to grow vpon the Tree, they last a great part of the Winter: they are also preserved in sodden Wine, and Vineger, and Water. In Catoes time they were not knowne in Italie. Plinie and others haue spoken of them: neither is it certaine, whether the old writers toke them for Seruises. Plinie speaketh of thre kinde of them: The first kinde hauing but thre stones in them, called therefore *Tricocum*: we haue at this day two kinde, the one hauing here and there prickles, growing in euery Wood and Whicket, very sowre afore it be mellowed, & made soft with frost, and cold of Winter: the other hauing no prickles at all with a great fruit, which seemeth to be brought hereunto by diligent Planting and Grafting. The Wood of the wilde Medlar we vse to make Spokes for Wheeles of, and the twigs of them serue for Carters whips. Next vnto the Medlar, for neighbourhood sake, we must speake of the Seruise, a high tree with a round berry, or fashioned like an Egge: wherefore it is called *oua*, as Theophrastus witnesseth, and the fruit *Sou*, the Latines call it *Sorbus*, the Italians as the Latines, the Spaniards *Seruall*, the Frenchmen *Cormie*, or *Cormier*, the Dutchmen *Sporckelbaum*; The fruit growes

The second Booke, entreating

in clusters as the Grape doth: the wilde is better then the Garden fruit. It delighteth in cold places, and if you plant it in hotte Countreies it will ware barraine. It hath no prickles as the Hedlar hath, it groweth of the stone, the set, the roote, or the science, and prospereth in a cold and wet soyle vpon hilles: it is planted in February and March in cold Countreies; and hot, in October and November. It is grafted either vpon his owne stocke, or on the Quince or Hawthorne, eyther in the stocke or the barke.

T H R A. I maruell how can you haue Pomegranates here, I pray you shew what order you vse.

Pomegrana-
tes,

M A R I V S. Among the strange fruits, there is none comparable to the Pomegranate (so called I thinke) because of his Countrey, Carthage and Africa, where the best doe grow: the tree (as you see) is not high, the leafe narrow, & of a very faire Greene, the flowre Purple, and long like a Coffine, the Apple that is compassed with a thicke rinde, is all full of graines within: it is called of the Greeks $\rho\omicron\alpha$ or $\rho\omicron\alpha$, as well the tree as the fruit $\rho\omicron\alpha$ $\gamma\lambda\upsilon\kappa\epsilon\iota\alpha$ $\kappa\alpha\iota$ $\epsilon\iota$ $\nu\omicron\sigma\tau\omicron\varsigma$, the Pomegranate swete and solwe, it is called in Latine Malum Punicum, and Malum Granatum in Italian Male grano, in Danish Granada, in French Pomes de Granad, in Dutch Granatapffel. This Tree onely as the Figge and the Vine, the body being clouen, dieth not: the branches are full of prickles as the Gozle is: it loueth both a hot ground, and a hot Countrey, and liketh not watris places. In some hot Countreies, it groweth wilde in the bushes: it is planted in the spring time, the rootes being watred with Hogs dung and scale. It is grafted vpon his owne stocke, and also vpon other trees, & likewise of the sciences that grow from the rootes of the olde tree. And though it may be planted sundry wayes, yet the best way is the branches of a cubit in length, smoothed with your knife at both the ends, and set slopewise in the ground; with both his endes well smeared with Hogges dung and scale. There is also another way of planting it, which is, to take a very fruitfull stocke, which may be brought to the earth, and him after the manner of ther trees they Graffe by infoliation, betwixt the barke and the rinde, and well and closely binde it: after, they set it in the ground, not touching the grafted part, but the parts beneath, annoying it with the mother of oyle, and make it fast with cordes, that

that it slip not backe, till the branch be growne. It much delighteth (as Democritus saith) in the Pyzill, in so much as the roots will mixe and tangle together with great ioy. The fruit will grow without kernels, if as in the Vine the pith being taken out, the set be covered with earth, and (when it hath taken) the spring be prynced. There is (as African reporteth) in euery Pomegranate a like number of graines, though they differ in bignes. Basill writeth in his Hexam, that the slowze Pomegranate will grow to be swæt, if the body of the tree nere to the root be pierced through, and filled by with a fat Pitch tree pin: you shall haue them endure a very great while, if they be first dipped in scalding water, and taken out quickly, be laide in dry sand, or else in some heape of wheate in the shadow, till they be wrinckled, or else so covered with chaffe, as they touch not one the other. Other say, it is best to keepe them like Quinces; covered with plaster, or chalke: for in cold places they are kept without corrupting. The rinde of the Pomegranate is called in Latine Malicorium: the slowze of the Garden Pomegranate, Dioscorides calleth, *ΚΥΤΙΒΟΝ*, and of the wilde *βυλγισίου*.

THRA. I heare also, the Out-landish Cytron is here verie carefully planted.

MARIVS. The Cytron, called also the Median, the Persian, Cytrons. and the Assirian Apple, because it was first brought out of Persia, & from the Medes: others say it was first brought out of Africa into Greece, by Hercules: and therefore Varro calleth it, the Apple of Africa: they are called in Italian Citroni, in Spanish Zidras, in Dutch Geternapffel Pomerancen, in French Citron: the fruit is called in Latine Hipericum, & Aureum malum, the golden Apple, also the marriage Apple of Iupiter and Iuno: such of them as are yellow, & of a golden colour, they commonly call Oranges: such as are of a greenish pale yellow, they call Cotrols, or Citruls: those that are long fashioned like an Egge, if they be yellow, are called Citrons, if they be greene, Limons: if they be very great and round like Pompeons, they call them Pomcizeons: the tree doth alwaies beare fruit, some falling, some ripe, & some springing: nature shewing in them a wonderfull fertilitie, as in the trees that Homer describeth in the Orchards of Alcinous. The leafe is like the Bay leafe, sauing that there grow prickles amongst them: the

the fruit is yellow, wrinkled without, sweet in saour, and soloye in taste: the kernels like the kernels of a Pearre, a great restorer of pepsons. The Tree is planted (as Palladius saith) foure manner of waies; Of the Kernell, the Science, the Branch, and the Stocke. If you will set the kernell, you must digge the earth two foote euery way, and mingle it with Ashes: you must make short beds, that they may be watered with gutters on euery side: In these beds you must open the earth with your hands a hand breadth, and set thre kernells together, with the tops downeward, and being covered, water them euery day; and when they spring, leaue no weedes nere them: they will spring the sooner, if you water them with warme water: others say it is best the grains being taken out in the spring, to set them diligently in good mellowed furrowes, and to water them euery fourth or fift day: and when they begin to grow, to remooue them againe in the Spring, to a gentle and a moyst ground, for it delighteth in much wet: if you set the bzanch, you must not set it aboue a foote and a halfe in the ground, lest it rot. The science and the Stocke, Palladius thinketh it better to be planted, and sheweth which way. If any man meane to cherish this tree, let him defend it well from the North, and set it toward the South, and the Sunne, in the Winter, in frailes and baskets: wherefoze, some that are carefull and diligent in the tendering of this tree, do make little vaults toward the South, close covered: and within them, nere the wall, they plant the Orange, suffering the vaults all Summer to lie open to the Sunne, and so haue the heat thereof: and as sone as Winter comes, they couer them straight with straw, or mattes, specially with the stalks of gourds. This tree delighteth to be continually digged about: they are grafted in hot places in Aprill, in cold Countries in May, not vnder the barke, but cleauing to the Stocke hard by the roote: they may be grafted both on the Pearre tree, and the Pulberie: but when they are grafted, must be fenced either with a wicker basket, or some earthen vessell. The fruit will be sweet, if the kernels be steeped in water sodde with honey, or which is better in Sheepes milke. Such as you meane to keepe, must be gathered in the night, the Mone being downe, and gathered with bzanches and all, as they hang. Where the fruit burdneeth the Tree, you must pull them off, and leaue but few

on it, which will be the pleasanter, and the kinder fruit. It is at this day nourished both in Germanie and France, and is planted in vessels full of earth, and in hot weather is set abroad in the Sunne: in cold weather set in Sellars, or in hot houses. I haue seene in Germanie, certaine hot-houses, of purpose made of Fire boards, that in Winter haue warmed all the Garden, & in Sommer the frames taken away, haue giuen place to the Sunne. If while they be young and little they be put into earthen vessels, or glasse, they grow according to the proportion thereof: so that you may haue them fashioned either like a man or like a beast, according to your fancie: but you must so order your moulds, as the aire may come to them. But lest I keepe you too long with these outlandish Trees, I will speake something of our owne trees, where with we are better acquainted. Among which we haue the Mulberry, in Latine *Morus*, in Italian *Moro*, in Spanish *Mora*, in French *Meure*, in Dutch *Mulbern*: this is accounted of all other trees the wisest, because he neuer blossometh til all cold weather be quite past: so that whensoever you see the Mulberry begin to spring you may be sure that Winter is at an end: he is ripe with the first, and baddeth out so hastily, as in one night with a noise he thrusteth out his leaues: they die the hands (as Plinie saith) with the iuice of the ripe berrie, & wash it off with the greene berrie: he changeth his colour thise, first white, then red, and lastly black: he loueth hot places, and grauelly, and delights in digging and dunging, but not in watering: his rootes must be opened about October, and the Lees of Wine powred vpon them: it is sette of the Stones, but thimne: it often groweth to be wilde: the best planting is the science, and the tops, a foote and a halfe long, sinow at both endes, and rubbed ouer with dung. The place wherein you set your Sets, they couer with Ashes mingled with earth; but couer it not aboue foure fingers thicke. Palladius bids you to set it in March, and to remoue it in October, or Nouember. Deritius telleth, that the Mulberrie may be planted in the fall of the leafe, by thrusting into the ground the branches, after the order of the Fig tree, which I my selfe haue proued, specially, if the end that is cut be well braised, that it may the quicklier take roote: and so when you haue made your hole with a Stake, thrust it in: it is best grafted on the Birch, & the white Poplar, either by grafting

The Mulberry tree.

The second Booke, entreating

in the Stocke, or by inoculation : and so shall the berries be white. It is grafted also in the Fig, & the Elme, which in old time they would not suffer, for feare of corrupting. Of the Pulberie is made a very noble medicine for the stomacke, and for the gout: they will longest indure. (as it is said) kept in glasses. The leaues do serue to scade Silke-wormes withall, whereof some make a very great gaine, and set them rather for that purpose then for the fruit.

T H R A. What tree is that with the ruddie coloured fruit, that is like a Cherrie?

The
Cornell.

M A R I V S. It is a Cornell tree, called in Latine Cornus, in Italian Corneolo, in Spanish Zereko seluestro, in French Cornier, in Dutch Cornelbaum: this tree is thought neuer to exceed twelue cubits in height: the body is sound and thicke, like horne: the leafe is like an almond leafe, but fatter: the flower and the fruit is like the Oliue, with many berries hanging vpon one stalk, first white, and after red: the iuyce of the ripe berries, is of a bloudy colour: it loueth both Mountaines and Vallies, and prospereth both in moist ground and drie: it groweth both of the slippe, and of the seede. You must beware you plant it not nere to your Woes, for the flower doth kill as many of them as take it.

T H R A. What Tree is the same that groweth next vs?

Ziziphus.

M A R I V S. That Tree is called Ziziphus, in Italian Guig-giole, in Spanish Azofeiso, in French Iniuba, in Dutch Burchbyrle, the berries whereof, are like the Cornel berries, the flower like the Oliue flower, but more sweeter. Columella speaketh of two kindes thereof, the one red, the other white: they are set of the stones, in hot Countries, in Aprill, and in cold places in May, or else in June: you may set both the stone, and the branch: it is very slow in growing: if you set the plant, you must doe it in March in soft ground: but if you set the stone, you must set them in a little trench of a hand broad, three stones together, with their points downeward. It loueth not too rich a ground, but rather a light ground, and a warme place. In Winter (as Palladius saith) it is good to lay stones about the body of the Tree. The next are Italian Filberts, in Latine Pistacea, in Italian Pistinachi, in Spanish Alhozigo, in French Pistaches, in Dutch Welfee pim-pernus: the leafe is narrow and browne: for vpon the branches hang

Italian
Filbert.

hang the Nuts, like the Nuts of the Pine. Of this tree it is thought there is both male and female, and therefore they grow commonly together, the male hauing vnderneath his shell, as it were, long stoncs: It is grafted about the first of Aprill, but vpon his owne stocke, and vpon the Terebinth, and the Almond Tree, they are also set (as Palladius witneseth) in the fall of the leafe in October, both of the slips, and the Nut. It delighteth in a hot and a moytt countrie, and ioyes in often watring.

THRA. Because I remember you tolde me before, that of Plants and Trees, some doe grow of the seed, or fruit, and some are Grafted: and because I haue heard the Grafting of most of them, I would now faine heare you speake of such Trees as grow onely of the stone, or berrie.

MARIVS. Your remembrance is good: for though they commonly grow better when they be grafted, yet some there be that prosper the better being sowed, and will scarce grow any other way. And though some of the foresaid Trees being set, doe well prosper, as the Medlar, the Cornell, and diuers other, yet sometimes they ware wilde, and are long before they come to perfection, which Virgill also affirmeth:

For that same Tree that of the seed, the stone or berrie growes,
Doth slowly spring, and long it is, ere any fruit he shewes:
And when it comes, it proueth wilde, and doth degenerate,
And loseth that same relish sweet, that longeth to his state.

But by Grafting it is restozed againe: Some of them againe, how soeuer they be sowed or set, doe not degenerate or grow out of kinde, as the Bay, the Date, the Cypresse, the Peach, the Abzicot, the Damson, the Pistace, the Firre Tree, and the Cherrie: and because they be not all of one order, I will tell you severally of the chiefest of them. To plant Trees of the seede, Nature (as I sayd before) taught men at the first: the seede being deuoured of Birds, and with the dounge let fall in the clefts of Trees, where they after sprong and grew.

The Bay, in Latine *Laurus*, in all other tongues almost as in The Bay.
Latine. The berry is called in Latine *Lauri Bacce*, in Italian *Bacche de Lauro*, in Spanissh *Vaya de laurell*, in Dutch *Lorboren*, a most gratefull Tree to the house, a porter to Emperours and
Bishops,

The second Booke, entreating

Bishops, which chiefly garnisheth the house, and standeth alwayes at the entrie. Cato maketh two kindes thereof, the Delphick and Cypresse: the Delphick, equally coloured and greener, with great berries, in colour betwixt greene and red, wherewith the Conquerours at Delphos were wont to be crowned. The Cypresse Bay hath a shorter lease, and a darker greene, guttered (as it were) round about the edges, which some (as Plinie sayth) suppose to be a wilde kinde: it groweth alwayes greene, and beareth berries, hee shooteth out his branches from the sides and therefore wareth some old and rotten: it doth not very well alway with cold ground, being hot of nature: it is planted diuers waies; the berries being dzyed with the south winde, are gathered red and layd abroad very thynne, lest they cluster together, afterward being wet with Urine, they are set in furrowes a handfull deepe, and very nere together: in March they be also planted of the slip, and the science. If you set them of the slip, you must set them not passing nine foot asunder: but so they grow out of kind. Somethink, that they may be grafted one in another, as also vpon Seruisse & the Ashe: the berries are to be gathered about the beginning of December, and to be set in the beginning of March.

Nut trees. Nut trees are commonly planted of the Nut, as all other shell-fruits are. Of all Nuts, the Almond is counted to be the worthiest,

The Almond tree. called in Italian Mandorle, in Spanish Almeidras, in French Aman-des, in Dutch Mandelcs: they are set in February, & prosper in a clere and hot ground, in a fat and a moyst ground they will grow barren: they chiefly set such as are crooked, and the yong plants: they are set both of the Slips, the Root, & the Kernell. The Nuts that you intend to set, must be laide a day before in soft dung: others keepe them in water sodde with honey, letting them lye therein but onely one night, least the sharpnesse of the honey spoyle the Plant: and being thus ordered, Columella saith, they will be both the pleasanter, and grow the better. The tops and the sharpe ends you must set downward: for from thence cometh the roote, the edge must stand toward the south: you must set thre of them in a Triangle, a handfull one from the other: they must be watred euery ten daies, till they grow to be great: It is also planted with the branches, taken from the midst of the tree. The Almond is grafted not nere the top of the stocke, but about

about the midst, vpon the bowes that grow out. This Tree doth soone beare fruit, and flourisheth before all others, in January, or February. Virgill accounts it for a Prognosticator of the plentifulnesse of Cozne.

When thicke the Nut Tree flowres a midde the wood,

That all the branches laden bend withall :

And that they prosper well and come to good,

That yeere besure, of Corne shall plenty fall.

The bitter ones (which are the wholesomer) are made sweet, if round about the Tree, foure fingers from the roote, you make a little trench, by which he shall sweat out his bitterness: or else if you open the rootes, and powre thereon eyther Urine, or Hogs dung: or if at the roote of the Tree, you thrust in a fat wedge of Pitch Tree. By this meanes (as Basill sayth) they will loose their bitterness: but no Tree groweth sooner out of kinde, and therefore you must often remoue it, or graffe when it is great.

Walnuts, called in Latine Iuglantes, in Italian Nocy, in Spanish Nuzes, in French Noix, in Dutch Groisse nusz: they are set in the ground (as Plinie sayth) the leame downeward, about the beginning of March: some thinke, that they will grow as the Filbert doth, either of the slippe, or the roote: it groweth speedily, and liketh a drie and cold place better then a hot. The Nut that you meane to set, will grow the better, if you suffer it to lye foure or five dayes before in the water of a boy, and will prosper the more, if it be often remoued: those Nuts (as it is thought) prosper best, that are let fall by Crows, and other birds. If you pierce the Tree through with an Augur, and fill vp the place againe with a pin of Elme, the Tree shall lose his knottie hardnesse, neither will he lose his fruit, if you hang by either Gallct, or a piece of Skarlet from a dunghill.

THRA. What is the reason you plant your Walnut trees round about on the outside of your Orchard, and not among your other Trees?

MARIVS. Because his shadow is great, and vniwholesome, beside the hurt he doth with his dropping. He sucketh out a great deale of good iuyce from the ground: for as you see, they are very mightie and high Trees, so as some of them are two or three sadome about: they occupie a great deale of roome with their

standing, and beguile the other Trees of their sustentance: Besides, there are certaine Trees they agré not well withall, and therefore haue I set them on the outside of my Orchard, as Standards to defend their fellowes from tempest & weather. Among

Hafell Nuts. **Hafell Nuts**, is also to be recounted the **Hafell Nuts**, a kinde whereof is the **Filbert**, called in Latine *Auellanæ*, in Italian *Nociuole*, in Spanish *Auellamas*, in French *Noysette*, in Dutch *Hafelnuzes*: they are planted after the manner of the **Almond**: it delighteth in clay and watrish grounds, and vpon Hills, being well able to abide the colde. They were first brought into Asia, and Greece, from Pontus, and therefore called *Ponticæ* and *Heraclioticæ*, &c. Among

Filberts. **Filberts**, the **Nuttes** also chalenge the **Chestnut** his place, though he be rather to be reckoned among **Walles**, wherby he is called the **Nut** or **Walles** of **Iupiter**, in Latine *Caltanea*, in Italian *Castagne*, in Spanish *Castana*, in French *Castagnes*, in Dutch *Kastey*: it loueth well to grow on Mountaines, and in colde Countries: it hateth waters, and desireth a cleane and a good mould: it misliketh not a moyst grauell ground, and ioyeth in a shadowie and Northerly bancke, it hateth a stiffe and a red clay ground: it is planted both of the **Nut**, and is set: it is better planting Woods of them, of the **Nut**, then of the set, otherwise the safer way were the set, which in two yeres beareth fruit. It is planted when the Sunne is in the *Equinoctiall*, both of the science, the set, the branch, and the roote, as the **Oliue** is. The **Chestnuts** that you meane to sowe, must be very faire and ripe, the newer they be the better they grow. You must not set them after that sort that you set **Almonds**, or **Filberts**, but with the sharpe end vplward, and a foot a sunder: the furrow must be a shaftman deepe. You were better (as I sayd) to make your **Groue** of the **Nut**, then of the sets, which will be meete to be selled for stapes in seauen yere. **Columella**, writeth, that the **Chestnut**, meet for the supporting of **Vines**, if he be sowed in well digged ground, doth quickly spring, and being selled after five yeres, it prospereth like the **Willow**: and being cut out in stapes, it lasteth till the next selling, as shall be shewed hereafter, when we speake of **Woods**. They will also haue the **Chestnut** to be grafted on the **Walnut**, the **Wæch**, and the **Dake**: it hath bene seene, that where they grow two and two together, they prosper the better.

The Pine, in Latine Pinus, in Italian and Spanisſh Pino, in French Pin, in Dutch Harribbaum, is planted not much unlike to the Almond, the kernels of the keite-cloakes being set as the Almond is: they are gathered in July, before the Canicular Windes, and ere the Puts, the huske being broken, fall out. The best time of sowing them, Palladius reckoneth to be October, and November: this Tree is thought to be a nourisher of all that is sowed vnder it. The Pitch tree is called in Latine Picea, in Italian Pezzo, in Spanisſh Pino negro, in Dutch Rotdannenbaum: but I come now to the Cherie. The Chery tree, in Italian, the Tree Ceraso, the fruit Ceraso, and Ciregie, in Spanisſh Cerezo, and Cereza, in French Cerisier, and Cerise, in Dutch Kirsbaum, Kerlen: the Tree is easie to be planted, if the stones be but cast abroad, they will grow with great encrease: such is their forwardnesse in growing, that the Staves or supports of Vines, being made of Cherie tree, are commonly seene to grow to be Trees. They are graffed vpon the Plome Tree, vpon his owne stocke, vpon the Plane Tree, and on the Bramble, but best vpon the wilde Cherie, it togeth in being graffed, and beareth better fruit: if you graffe them vpon the Vine, your Tree shall beare in the Spring: the time of graffing, is eyther when there is no Gumme vpon them, or when the Gumme hath left running. They remooue the wilde plant, either in October or November, that the first of January or February, when it hath taken roote, it may be graffed vpon. Martiall would haue you graffe it in the stocke: but indeed it prospereth better, being graffed betwixt the barke and the wood. It delighteth to be set in deepe trenches, to haue roome enough, and to be often digged about. It loueth to haue the withered bow continually cut away: it groweth best in colde places, and so hateth dung as if it be layd about them, they grow to bee wilde: it is also planted of the slips, and will beare his fruit without stones: if in the setting of the set you turne the vpper end downeward. Others will that the tree being yong and two foot high, be slit downe to the roote, and the pith taken out of both sides, and soynded together, the seams close bound about, and couered with dung: which with in a yere after, when it is well growen, the yong graffes (which hitherto haue borne no fruit) if you graffe them, will beare

The Cherie tree.

Cheries without Stones, as Marciall sayth. There are sundry kinds of Cheries (as Plinie reporteth, or Apronianus) that are redder then the rest, Actianus, as blacke as a cole: which kind in Germanie yet at this day they call Acklische kirschen, Celicians, that are round. Plinie in speaking of the sundry sorts, preferreth the Duracins, which in Campania they were wonted to call Plinians: and a little after he saith, vpon the bankes of the Rihne, there grow also Kerlis, of colour betwixt blacke, red, and greene, like the Juniper berries, when they be almost ripe: in which the common sort of bookes haue Tertius for Kerlis amongst the Germanes: for Plinie, whereas in many places hee vsurpeth the Dutch words, as in the 9. 10. 17. and 18. booke, and in diuers other places, which being not vnderstood of the Latines, came altogether corrupted to the posteritie. There are also Bay Cheries, grafted at the first in the Bay, and haue a pretty pleasant bitternesse: at this day, the small Cheries are best esteemed, growing vpon a low bush with short stalkes, round fruit, and very red, much meat, soft, and full of licour. It is said they will beare very timely, if you lay Lime about them: it is good to gather them often, that they which you leaue may waere the greater: for setting and planting of Cheries, you may reade a great sort of rules in the gatherings of Constantine. There are also found a kinde of Cheries growing wilde in the Woods, and Hedge rowes, with little berries, some redde, some altogether blacke, which the Farmers in the Countrey doe vse for to fatten their Hogs withall. The Blome tree in Græke *κοκκυριλλος*, the fruit *κοκκυριλλος*, in Latine Prunus and Pruna, in Italian Prune and Succiu, in Spanish Ciruelo, and Ciruela, in French Prune, in Dutch Proumen, it is planted from the middle of Winter, till the Ides of February: but if you set the Stones at the fall of the leafe, let it be done in Nouember, in a good and mellow ground, two handfulls deepe: they may be likewise set in February, but then they must be steeped in lye thre dayes, that they may sooner spring: they are also planted of the young sets that grow from the body of the tree, eyther in January, or in the beginning of February, the rotes being wel covered with dung: they prosper best in a rich and a moyst ground, and in a colde Countrey: they are grafted toward the end of March, and better in the clouen Stocke, then

Plome
trees.

then in the barke, or else in January, before the Gumme begin to drop out: it is Grafted vpon his owne stocke, the Peach and the Almond. There are sundry sorts of Plomes, whercof the Damson is the principall, ioying in a dry ground, & in a hot countrey, and is grafted as the other Plomes are. There are diuers coloured Plomes, white, blacke, purple, and red: Wheat Plomes, and Horse Plomes, wherewith they vse to fat Hogs. The finger Plomes are most commended, being of length, a mans finger, which are brought vnto vs from Bohemia and Hungarie, and Iulians, and Noberdians, being blew in colour, but later. The Damsons are dried in the Sunne vpon Lattises, Leads, or in an Oven, some doe dip them before, either in sea water, or in Wine, and after drie them. The Peach tree, called in Latine Persica, in The Peach Tree Italian Perseo, in Spanish Durafuo, they are also called Rhodocina, and Dorocina, or Duracina, whercof there are foure kinds: but the chiefest are the Duracins, and the Abzicots: in Nouember in hot Countries, and in others in January, the stones are to be set two foot asunder in well dressed-ground, that when the young trees are sprung vp, they may be remoued: but in the setting you must set the sharpe end downeward, and let them stand two or thre fingers in the ground: wheresoeuer they grow, they reioyce most in watry grounds, which ground if you want, looke that you water them abundantly, so shall you haue great store of fruit. Some would haue them set in hot countries, and sandy ground: wheroby they say, their fruit will longer endure: the better will also the fruit be, if as soone as you haue eaten them, you set the stone, with some part of the fruit cleauing to it: it is grafted either on himselfe, the Almond, or the Plouetree. The Apples of Armenia, or Abzicot, doth farre excell the Peach, used The Abzicots. as a great daintie among Noblemen, and much desired of the sicke: they are best grafted in the Plome, as the Peach in the Almond tree: the fairest gresses that grow next the body of the tree are to bee chosen and grafted in January, or Februarie, in cold countries, and in Nouember in hot: for if you take those that grow in the top, they will eyther not grow, or if they grow, not long endure. You shall inoculate, or imbud them in Aprill or May, the stocke being cut aloft, and many young buddes set in: neither must you suffer them to stand very farre one from the other,

The second Booke, entreating

that they may the better defend themselves from the heat of the Sunne. The Frenchmen, and our Gardners also, after the Italians order, doe graffe the Apricot, taking a graft (not full a finger long) of the bud that is well shot out, with a little of the rind cut off, and fitting the rind of a yong Plome tree crookewise they set them in, binding them well about with Hempe, or Towe, and that in the end of June, or in July, and August. Some thinke they will be red, if they be either grafted in the Plane tree, or haue Koles set vnderneath them: they will also be figured, or written in, if seauen dayes after that you haue set the stone, when it beginneth to open, you take out the kernell and with Vermilion, or any other colour you may counterfeit what you will, after the stone closed vp about it, and covered with Clay, or Hogges dung, you set it in the ground. Againe, you shall haue them without stones, if you pierce the Tree thorow, and fill it vp with a pinne of Willow, or Cornell tree, the pith being had out: the Rootes of the Tree must be cut and dressed in the fall of the leafe, and dounced with his owne leaues: you shall also at this time pryne them, and ridde them of all rotten and dead beuies. If the Tree prosper not, poure vpon the rootes the Lees of old Wine mingled with water. Against the heat of the Sunne, heape vp the earth about them, water it in the euening, and shadow them as well as you may. Against the frosts, lay on dung enough, or the Lees of Wine medled with water, or water wherein Beanes haue bene sodden: if it be hurt with wormes, or such baggage, poure on it the Urine of Oxen medled with a third part of Vinegar.

The Date.

The Date tree, in Italian, in Latine, and in Spanishe Palma, in French Arbor de Dates, in Dutch Dactelenbaum: the fruit in Latine Palmula, in Italian Datoch, in Spanishe Dattiles, in French Dattes, in Dutch Dactelem, it groweth in a mild grauelly ground, and delighteth in a watry soyle: & though it desireth to haue water all the yeere long, yet in a dry yeere it beares the better: therefore some thinke that dung is hurtful vnto it. About the Riuier Nilus, & in the East parts, it groweth plentifully, where as they vse to make both Wine and Bread of it: this Tree in Europe (for the most part) is barren, though it be planted of many for nouelty sake. The stonnes of Dates are planted in trenches of a cubit in depth
and

and breadth, the trench filled vp againe with any manner of dung, except Goates dung: then in the middlest of the heape set your stones so as the sharper part stand vpward: others would haue it stand toward the East: and after, when first they haue sprinkled thereon a little Salt, they couer them with earth, well mixed with dung: and euery day while it springeth, they water it: some remoue it after a yeres growth, other let it grow till it be great. Moreover, because it delighteth in salt ground, the rootes must be dressed euery yere, and salt throwne vpon them: and so will it quickly grow to be a great Tree. The Sets are not presently to be put in the ground, but first to be set in earthen Pots, and when they haue taken roote, to be remoued. Date Trees haue such a delight one in the other, that they bend themselues to touch together, and if they grow alone, they ware barraine. They are planted (as Plinie saith) of the branches, two Cubites long, growing from the top of the Tree: also of the slips and diuers. The same Plinie affirmeth, that about Babylon, the very leafe (if it be set) doth grow:

T H R A. I remember you told me once, the Spring and Science that groweth out of the rootes of some Trees, will very well be planted.

M A R I V S. I told you before, that diuers of the Trees wherof I spake, might be planted of the branches; and of the Sciences, hauing some part of the Roote plucked vp with them: and so I said the Cherrie might be planted, as also the Hasell, the Laurel, the Mytell, and the Medlar: likewise the fairest branches clipped off, and the ends a little bruised, and thrust into the ground, commonly doe grow to be Trees, as I my selfe haue tried both in the Mulbery, the Beare-tree, and the Apple-tree. One thing I will adde beside, that the Trees that beare fruit ouer hastily, doe either neuer come to their iust bignesse, or the fruit that they beare, doth neuer long endure: wherof I thinke sprang first that law of Moises, that fruit Trees should for thre yeres be counted uncircumcised, and their foreskinnes with their fruit, should be circumcised: that is, the burgens and blossomes should be plucked off, least he should beare before his time, or when he hath borne, lose his fruit: but I keepe you too long in the describing of my Orchard.

The second Booke, entreating

T H R A. O no, I rather (whilst I heare you) imagine my selfe to be amongst them, planting and viewing of their fruits : but now remaineth that in stead of a conclusion to your talke, you declare the order, of preserving them, to that end specially, that those things that are appointed for remedy (being not duely, or in time administr'd : be not rather a hurt) then a helpe.

M A R I V S. Your motion is good : First therefore, and generally, dunging and watering is needfull for fruit Trees, a very few excepted : and herein heed must be taken, that you doe it not in the heate of the Sunne, and that it be neither too new, nor too old : neither must it be laid close to the foote of the Tree, but a little distance of, that the fatnesse of the dung may be drunk in of the roote. Pigeons dung, and Hogges dung, doe also heale the hurts or wounds of Trees. The water wherewith we water them, must not be Fountaine water, or Well water, if other may be had, but drawne from some muddle Lake, or standing Pools. Moreover, you must take heed, as I also told you before) when we began to talke of planting of an Orchard) that your Trees stand a good distance a sunder, that when they are growne by, they may haue room enough to spread, and that the small and tender, be not hurt of the greater, neither by shadow, nor dropping. Some would haue Pomegranate Trees, and Myrtles, and Baies, set as thicke together as may be, not passing nine foote a sunder : and likewise Cherry trees, Plumb trees, Quinces, Apple trees, and Pearre trees, thirtie foote and more a sunder : euery sort must stand by themselves, that (as I said) the weaker be not hurt of the greater. The nature of the Soyle, is hereto most to be regarded : for the Hill requireth to haue them stand nearer together, in windy places you must set them the thicker. The Olive (as Cato saith) would haue five & twenty foot distance at the least. You must set your plants in such sort as the tops be not hurt, or bzuised, nor the barke, or rinde slawed off : for the barke being taken away round about, killeth any kinde of Tree. You must also haue a regard of the shadow, what trees helpeth, and what trees it hurteth. The Walnut tree, the Pine tree, the Pyrch tree, and the Firre tree, whatsoeuer they shadow, they popson. The shadow of the Walnut tree, and the Oaks hurtfull to Coyne: the Walnut tree with his shadow also, is hurtfull to mens heads,

Shadow
of Trees.

heads, and to all things that is planted nere it. The Pine tree with his shadow likewise destroyeth young Plants, but they both resist the winde, and therefore good to enclose Vineyards. The Cypresse, his shadow is very small, and spreadeth not farre. The shadow of the Figge tree is gentle, though it spread farre, and therefore it may safely enough grow amongst Vines. The Elms tree, his shadow is also milde, nourishing whatsoeuer it couereth. The Plane tree though it be thicke and grosse, is pleasant. The Poplar hath none, by the reason of the wauering of his leaues. The Alder tree hath a thicke shadow, but nourishing to his neighbours. The Vines is sufficient for himselfe, and the mouing of his leafe, and often shaking, tempereth the heate of the Sunne; and in great raime well couereth it selfe. The shadow of all those, is commonly milde and gentle that haue long stalkes: the dropping of all Trees is nought, but worst of all those, whose branches grow so as the water cannot readily passe through: for the drops of the Pine, the Dake, and the Hawthorne, are most hurtfull, in whose company you may also take the Walnut: the Cypresse (as Plinie saith) hurteth not. Moreover, proyning and cutting, is very good and necessary for trees, whereby the dead & withered boughes are cut away, and the vnprofitable branches taken off: but to proine them euery yere is naught, though the Vines requireth cutting euery yere: and euery other yere, the Myrtill, the Pomegranate, and the Oliue, whereby they will the sooner beare fruit: the others must be the seldomer proyned. Oliue trees must be proyned in the fall of the leafe, after the setting of the seauen starres: and first, they must be well dunged, as a helpe against their hurts. You must cut away all the old rotten branches that grow in the middell, and such as grow thicke, and are tangled together, and all the water boughes, and vnprofitable branches about them: the old ones are to be cut close to the stocke, from whence the new springs will arise. Scarifying also or launcing, is very wholsome for the trees, when they are screined with their leaues, & dincesse of their barkes: at which time we vse to launce the barke with a sharpe knife, cutting it straight downe in many places: which, what good it doth, appeareth by the opening and gaping of the rinde, which is straight waies filled vp with the booy underneath. You must also trim and dress the rootes of your

Dropping
of Trees.

Proyning.

Scarifying.

Trees.

The second Booke, entreating

Ablaqua- **Trées** after this sort : You must open the ground round about
tion. them, that they may be comforted with the warmth of the Sunne,
and the raine, cutting away all the rootes that runne upward.
Remo- **The trées** that you remouue, must be marked which way they stood
ning. at the first : soz so teacheth Virgill :

And in the barke they set a signe,
To know which way the Tree did grow :
Which part did to the South encline.
And where the Northerne blastes did blow.

Also you must consider well the nature of the Soyle, that you
remoue out of a drie ground, into a moyst, and from a barraine
hill, to a moist Plaine, and rather satte, then otherwise. The
young plants being thus remoued, must in the second or third
yære be proyned, leauing still about thre or foure branches vn-
touched, so shall they the better grow : thus must you vsually doe
euerie other yære. The old trée we remoue with the tops cut off,
and the rootes vnperished, which must be helped with often dung-
ing and watering. Apple-trées that blossome and beare no fruit,
or if it beare, they sodainly fall away, you shall remedie by sitting
of the roote, and thrusting in of a stone, or a wooden wedge. Also
if you water your Trées with Urine that is olde, it greatly auai-
leth (as they say) both soz the fruitfulnessse, and pleasantnesse of
the fruit. If the Trée decay by reason of the great heate of the
Sunne, you must raise the earth about it, and water the rootes
euerie night, setting by some defence against the Sunne. To
cause their fruit to be quickly ripe, you must wet the little rootes
with Vinegar, and Urine that is olde, couering them againe with
earth, and oft digging about them. The Urine of men, if it be
kept thre or foure moneths, doth wonderfull much good to plants,
which if you vse about Vines, or Apple-trées, it doth not onely
bring you great encrease, but also giueth an excellent tast and sa-
uour, both to the fruit and the wine : you may also vse the mother
of oyle, such as is without salt, to the same purpose, which both
must speedily be vsed in Winter.

THRA. We see that frosts and mists, doe oftentimes great
harme to Trées, haue you any remedie against it ?

MARIVS. Against frosts and mists, you must lay by round
about your Orchard, little faggots made of stalkes, rotten
bowes,

When
trees beare
not, or
hold not
their fruit,
a remedie.

boughes, or straw, which when the frosts, or mists arise, may be kindled, the smoake whereof auoydeth the danger. You must stauē also drie dung amongst your Vines, which when the frost is great, you may set a fire: the smoake whereof disperseth the frost.

T H R A. What if the Trées be sicke, and prosper not?

M A R I V S. When they haue any sicknesse, they vse to polure vpon the Rootes the Lees of Wine mingled with water, and to sow Lupines round about them. The water also wherein Lupines haue béene sod, polured round about, is very good (as Plinie saith) for Apple trées.

T H R A. Trées are oftentimes also hurt with woymes.

M A R I V S. If your Trées be troubled with woymes, there are diuers remedies, for the iuyce of Wormewood destroyeth the Caterpillers. The séeds or graine, that are steeped in the iuyce of Sengriene, or Housclécke, are also safe from any woymes: also Ashes mingled with the mother of Dyle, or the scale of an Dre, medled with a third part of Vinegar. Moreover, they say, that the Trées that are smoaked with Wymstone, or Lime, are safe from hurtfull vermine: Galbanum likewise burnt vpon the coales, dziueth them away. The blades also of Garlicke, the heads being off, so burnt (as the smoake may passe through the Orchard) doth destroy the Caterpillers: some mingle Sote with the séeds, and sprinkle them with water. Democritus writeth, that a woman in her vncleanesse, vngirt, and her haire hanging about her shoulders, if she goe bare-foot round about the place, the Caterpillers will presently fall: but perhaps I trouble you with this tedious, or long discourse of Herbs, Plants, and Trées, and therefore though there be much more to be spoken of, least I should séeme to ouer-wearie you, I will make an end.

T H R A. A trouble: no, you haue done me a singular great pleasure, in declaring vnto me the right ordering of a Garden, and an Orchard, which not thzoughly entreated of by others, you haue briefly, and perfectly, to our great commoditie described. And whereas you haue largely spoken of our Trées at home, it remaineth for you to say something of the disposing of Woods: It was my chaunce to passe yester day, by a great Wood of Oakes, and Coppisse, planted in very good order, and hard by, a Willow Grove.

The second Booke, entreating

Groue vpon the side of a Riuer, excellently well ordered, where the Fields were enclosed round about with great Elmes, which greatly beautifieth your dwelling, and yeeld (I warrant) no small profit: I therefore greatly desire to heare something of this part of husbandrie.

Of Woods **M A R I V S.** Though it be without my covenant, and that you demand moze then I promised, yet since you force me, I will not refuse it, least you should thinke I would faile you in any thing. As touching Woods, Ancus Martius (as Petrus Crinitus writeth) was the first in Rome that euer dealt in them: the olde Father had alwaies a speciall regard of Woods, wherefoze Virgill saith:

If that of Woods I frame my Song,
Woods vnto Princes doe belong:
If that of Woods I list to sing,
Woods may full well beseme a King.

It was ordained by the Romanes, that the Consuls should haue the charge of the Woods, that there should no Tymber be wanting for building of Houses, and Ships, and other Tymber-woorkes, both publique, and priuate. The state of Venice at this day, obserueth the same order, pointing a priuate Officer for their Woods, who hath in charge as well to see to the yeerely planting of them, as to let that there be wanting no Tymber, for their necessarie vses. The Wood that you told me you passed by, is of Dakes, Bêches, and other Past trées: some part seruing for Tymber, and other for felwell. Of these therefore will I first begin to speake, and then of Oliue Groues, and Willowes, some of them be wilde, and grow of themselues, not needing any looking too, but such, as daily experience shewes, are nothing so good, as those that are planted. Woods, and Forrests, doe chiefly consist of Dake, Bêch, Fyvre trée, Byrche, Pine, Pitch trée, Pastholme, Cozke, wilde Oliue, Hedlar, Crab trée, Juniper, Coznell, and Pyrie: other Woods haue other trées, according to the nature of the ground. The great Wood of Hartelswald in Germanie, as it runneth through diuers Countries, beareth in some place onely Dake, in others Bêch, in others Fyvres. The Forrest of Arderne for the most part beareth Dake: Monticello, Larsh, Fyvre, Cozell, and Tamarice. Monte D.S. Gothardo,

great

great abundance of Chestnut trees. These wilder sort, though they grow of themselves, may yet well be planted, if you have moore ground of the Acorne, and the Berry: each of them liketh some one kinde of ground better then another, as first Theophrastus, and after Plinie hath declared. In the mountaines delighteth the Fyre tree, the Cedar, the Larch, the Pitch tree, and such as beare Kofine: as also the Holme, the Trebinth, the Chestnut, the Haltholme, the Dake, the Beech, the Juniper, the Coznell, and the Dogge tree: though some of these also prosper well enough in the plaine. The Fyre, the Dake, the Chestnut, the Fyrebeech, the Haltholme, and the Coznell, grow as well in the Valley, as on the Mountaine: vpon the Plaines you shall haue the Tamarix, the Elm, the Poplar, the Willow, the Hasell, the Walnut, the Hornebeam, the Maple, the Ash, and the Beech. You shall not lightly see the Plumb tree, the Apple, the wilde Olive, nor the Walnut, vpon the Mountaine, all such as grow as well in the Plaine, as vpon the Mountaine, are larger, and fairer to the eye, growing in the Plaine, but are better for Tymber, and fruit, vpon the Mountaine, except the Pear, and the Apple, (as Theophrastus saith.) In Barre ground delighteth the Willow, the Alder, the Poplar, and the Pruey. And although the most Woodes doe spring of their owne nature and accord, yet are they by planting, labour, and diligence, brought to be a great deale more sayre and fruitfull: for, as afoze I told you how fruit trees are nourished and brought vp in Impe Gardens; so are these wilde and fruitlesse trees set and planted for Timber and Fewell. He that is disposed to plant a Wood, must first, according to his soyle, chuse his sets: and if he haue them not springing of his owne, let him make an Impe Garden of the seedes, enclosing well the ground with Hedge, Rampire, or Ditch, least Shæpe, Goates, or any other Cattell, come in to bite and bruze it: for whatsoeuer they haue once bitten (as it were infected with a deadly poyson) perisheth: and therefore those that meane to plant Woodes, epyther for Timber, Fewell, or Waste, must carefully prouide against these hurtfull enemies. The Countrey lawes haue therein well prouided, that where such Springs are, they shall fixe no Goates, nor such Cattell. Amongst the The Oake Trees, and such as serue for Tymber, the first place of right

belongeth.

belongeth to the Dake, called in Latine Quercus, in Italian Quercia, in Spanish Roble, in French Chesny, in Dutch Eichenbaum, he that will then plant an Dake Grove, must prouide him of ripe Acoznes, not ouer-dried, nor faultie, or any way corrupted: these must be sow in good ground well filled, with as great carefulnesse as he plants his Orchard, and well enclose it, that there come no Cattell in it: which (when they be something growne) you must about Februarie remoue to the place where you entend to plant your Wood: if you cut and proyne them, it is thought they will prosper the better for Past: but if you reserue them for Timber, you must not touch the tops, that it may runne by the straighter and higher. In remouing them, you must make your trenches a foote and a halfe deepe, couering the Rootes well with earth, taking good hœde you neither bruse them, nor brake them: for better you were to cut them. The Dake agreeth well enough with all manner of ground, but prospereth the better in Marthes, and watry places: it groweth almost in all grounds, yea euen in grauell and sand, except it be ouer-dry: it liketh worst a fat ground, neither refuseth it the mountaine. We haue at this day an Dake in Westphalia, not farre from the Castle of Altenan, which is from the soote to the next bow, one hundred and thirty foote, and threë elles in thickenesse: and another in another place, that being cut out, made a hundredaine loads: not farre from this place there grew another Dake of tenne yards in thickenesse, but not very high: the Rowers in Germanie, were wont to vs for their Ships hollowed Træs, whereof some one (as Plinie saith) would carrie thirtie men. The next amongst the Past træs is the Bëch, in Latine Fagus, in Italian Faggio, in Spanish Haya, in French Faus, in Dutch Buchen, planted almost after the same manner that the Dakes be. The Past holme in Latine Ilex, in Italian where it is better knowne Elice, in Spanish Enzina, in French Haußen: it groweth high, if it haue a ground meete for it: it prospereth vpon hilles, and likes not the Plaine: it beareth Acoznes lesser then the Acoznes of the Dake, a leafe like a Bay, and is continually greene. The like hath the Cozke-stræ, in Latine Suber, in Spanish Alcornoque, in French Liege, which is counted amongst those that beare Past, the barke whereof we occupie for the stotes of our fishing Nets,

Beech
wood.

and

and in Pantofels for Winter : all other trees (saue onely the
 Cozke, if you spoyle them of their backe dos dye. Another Mast-
 bearing Oke there is, called in Latine *Quercus siluestrum*, in
 French Chesne, a kinde whereof some thinke the Cerre tree to
 be, called in Latine *Cerrus*, growing in wilde and barren places.
 There are some that dos number the Chestnut tree amongst the
 Mast bearers : but of this I haue spoken before. The best Mast
 is the Oke Mast, the next the Beech and the Chestnut, then the
 wilde Oke, &c. All very good and meet for the fatting of Cat-
 tell, specially Hogges. The Oke Mast, or Acorne, maketh thicke
 Bacon, sound flesh, and long lasting, if it be well salted and dried:
 on the other side, Chestnuts and Beech Mast : make swet and
 delicate flesh, light of digestion, but not so long lasting. The
 next is the Cerre Tree, that maketh very sound and good
 flesh : The Mastholme maketh pleasant Bacon, faire and
 weightte. Plinie saith, that it was ordained by the Law of the
 twelue Tables, that it should be lawfull for any man to gather
 his owne Mast, falling vpon the ground of his neighbour, which
 the Edict of the chiefe Justice doth thus interprete: that it shall
 be lawfull for him to doe it thre dayes together, with this pro-
 uiso, that hee shall onely gather the Acornes, and doe no harme
 to his neighbour, as Vlpianus witnesseth. Glans Mast (as Caius
 sayth) is taken for the fruit of all trees, as *Ακρόβουα*, signifieth
 with the Greeke, though properly *Ακρόβοα*, be those fruits that
 are shelde, as Nuts, and such other. Upon these Mast bearers
 there groweth also the Gall, in French *Noix de Galle*, in Italian
 and Dutch, as in Latine, in Spanish *Agalla*, a little Ball, rugged
 and vneuen without, whereof some be massie, some hollow,
 some blacke, some white, some bigge, some lesser. It groweth
 (as Plinie sayth) the Sunne rising in Gemini, commonly all out
 suddenly in one night: in one day it waxeth white, and if the heat
 of the Sunne then take it, it withereth: the blacke continueth the
 longer, and groweth sometime to the bignesse of an Apple: these
 serueth best to curry withall, and the other to finish the Leather,
 the worst is of the Oake: and thus of such Trees as beare
 Mast. Now will I saye withall the principallest of the other
 Trees, to make by your Wooddes, amongst which are the
 Elme, and the Willow: the Elme, in Latine *Vlmus*, The Elme

Mast, and
 his diffe-
 rences:

The second Booke, entreating

in Italian and Spanish Olmo, in French Orme, in Dutch Vlm-
baum, and Yffenholtz: the planting whereof, because it is to
great vse, and easily growes, we may not let passe: first, because
it groweth well with the Vine, and ministrereth good woode to Cat-
tle: secondly (as it is all heart) it maketh good tumber. Theo-
phrastus and Plinie doe both affirme the Elme to be barraine,
peradventure because the sæde at the first comming of the lease,
seemeth to lye hid among the leaues, and therefore it is thought
to be some of the lease (as Columella affirmeth.) He that will
plant a Grove of Elmes, must gather the sæde called Samara, a-
bout the beginning of March, when it beginneth to waxe yellow,
and after that it hath dyled in the shadow two daies, solue it
very thicke, and cast fine sifted mould vpon it, and if there come
not good store of raine, water it well: after a yære you may re-
moue it to your Elme Grove, setting them certaine foote a sun-
der, and to the end that they roote not too deepe, but may be ta-
ken by againe, there must be betwixt them certaine little tren-
ches, a foote and a halfe distance: and on the roote you must knit
a knot, or if they be very long, twist them like a Garland, and
being well nointed with Bullockes dung, set them, and tread in
the earth round about them. The female Elmes are better to
be planted in Autumne, because they haue no sæde: at this day in
many places, cutting off Sets from the fairest Elmes, they set
them in trenches, from whence when they are a little growne,
they gather like Sets, and by this dealing make a great gaine of
them: in the like sort are planted Groves of Ashes. The Ashe

Ash groves in Italian Fraxino, in Spanish Fresno, in French Fraisine, in
Dutch Eschen: the Ashe delighteth in rich and moist ground, and
in plaine Countries, though it grow well enough also in drie
grounds, he spreadeth out his Rootes very farre, and therefore is
not to be set about Cozne ground, it may be felled every third or
fourth yære, for to make staves for Vines. The Ashe groweth
very fast, and such as are forwards are set in Februarie, with such
young Plants as come of them, in good handsome order standing
a-row: others set such Ashes as they meane shall make suppo-
rters for Garden Vines, in trenches of a yære old, about the Cal-
lends of March: and befoze the thirty sixth moneth they touch
them not with any knife, for the preserving of the branches: after
every

every other yeere it is pruned, and in the first yeere ioyned with the Vine: if you vse to cut away the branches, they will grow to a very goodly height, with a round body, smooth, plaine, & strong: Plinie writeth of experience, that the Serpent doth so abhorre the Ashe, that if you enclose fire and him with the branches, he will rather runne into the fire then goe through the bowes. Wyck, called in Latine Betula, as Theophrastus writeth in his fourth Booke, is a Tree very meete for Woods: it prospereth in colde Countries, frostie, snowie and grauelly, and in any barraine ground, wherefore they vse in barraine grounds, that serue for no other purpose to plant Wyckes: it is called in Italian Bedolla, in Dutch Byrken, in French Beula. Pine Woods, Firre Woods, Pitch tree, and Larsh, are common in Italy about Trent. The Pine tree in Latine Pinus, in Italian and Spanish Pino, in Dutch Hartzbaum, is planted of his kernels, from October to Januarie, in hot and dry Countries: and in cold and wet places, in Februarie or March: the kernels must be gathered in June, before the clogges doe open, and where you list to sowe them, either vpon hilles or else where: you must first plow the ground and cast in your seede, as yee doe in sowing of Corne, and couer them gently with a light Harrow or a Rake, not covering them about a hand broad: you shall doe well, if you lay the kernels in water three daies before. The kernels of the Pine are called in Spanish Pinones. The Firre tree in Latine Abies, in Italian Abete, in Spanish Abeto, in Dutch Deamen, loueth not to haue any great adoe made about it: if you be too curious in planting of it, it will grow (as they say) the worse, it growes of his owne kernell in wilde Mountaines, Plaines, or any where. The Pitch tree in Latine Picca, in Italian Pezzo, in Spanish El pino de que se baza lapez, in Dutch Rododemem, is a tree of the kinde of Pines, and very like to the Pine sweating out his Kcezen as he doth: for there are five kindes of these Kcezen trees, the Pine, the Pitch tree, the wilde Pine, the Firre, the Larsh, and the Tarre tree, the planting of them all is alike. The Alder, a tree

The Pine.

Firre tree.

The pitch tree.

The Alder.

Poplar, planted with Poplar, whereof there are two sorts, the White, and the Blacke; the White is called with the Italians, Populo bianco: with the Spaniards, Alamo blanco: the Blacke, of the Italians, Populo nigro: of the other, Amalo nigrillo: in French, Peuplier: in Dutch, Peppelom: it is planted of the Branches and Settes, and delighteth in watric places, or any other ground, it proueth very fast: the blacke hath the ruggedder barke, his leaues round while he is young, and cornered in his age, white vnderneath, and græne aboue. The Tymber hereof is good for buildings, specially within doores: his wood is whitish within, and the rinde blackish, whence he hath his name. Theophrastus addeth a third kinde, which some call the Poplar of Libya, and of the Alpes, it hath a rugged barke, like the wilde Perrie: a leafe like Iuie, and is in colour like a darke græne, sharpe at the one end, and broad at the other. The blacke Poplar groweth in great plentie about the lower parts of the Rhyne: though Homer call the Willow a fruitlesse tree, because his fruit turneth into cobwebs before they be ripe: yet is the soueraignty giuen him amongst Woods that are vsually scid. Cato giueth the third place of husbandry grounds to the Willow, preferring it either before the Olive Grove, Corne ground, or Meddow, for it is oftner to be cutte, and groweth the thicker: neyther is there so great gaine with so little charge in any thing. It delighteth in watric grounds, darke and shadowie, and therefore is planted about Riuers and Lakes, howe be it it groweth in Champion, and other ground. It is planted of young Settes, a foote and a halfe long, and well covered with earth: a wet ground requireth a greater distance betwixt them, wherein you shall doe well to set them five foote asunder, in order like the Sinkes vpon a Dye: in the drie ground they may be sette thicker together, yet Columella would haue them five foote distant, for passing by them. There are two sorts of Willowes, one sort enduring for euer, called Osier, seruing for making of Baskets, Chayres, Hampers, and other Countrey stufte: the other kinde growing with great and high branches, seruing for staves to Vines, or for Quicksets, or Stakes of Hedges, and is called Stake Willow: it is planted both of the twigge and of the stalke, but the stalke is the better, which must

Willowes.

Osier.

be.

be set in a moyst ground well digged, two foote and a halfe in the ground before it spring, and when the twigges are bare, you must take them from the tree, when they be very dry, otherwise they prosper not so well: these stakes or settes being taken from the young stocke, that hath bene once or twice cut, and in thickest as much as a mans arme, you must set in the ground three foote, or a foote and a halfe deepe, and sixe foote asunder, laying good mould about them, fence them well, that there come no cattell to pill off the barke of them. After three or foure yeeres you may pull them, whereby they will grow and spread the better, and so you may continually cut them every fifth, or fourth yeere, whereof you may make Sets for planting of more, for the olde ones are not so good to be occupied. The time of cutting of them, is from the fall of the leafe vntill Aprill, the Hone encreasing, and in Westerly, or Southerly windes: for if you doe it, the winde being in the North, we finde by experience they will not grow so well: you must cut them cleane away, that the olde branches hurt not the young Springs: some thinke the young Willow to grow the better the nêxer the ground, and the smother he is cut. The Osier commonly groweth of his owne selfe, and is also planted of his Roddes, in watric and marish grounds, the earth raised vp, and layd in furrowes: it is planted, and springs most plentifully, where the earth is beaten by with the rage and ouerflowings of the water: it serueth as a sure defence for making of Bankes and Walles in Marshes, and that chiefly in March, the Hone encreasing: the Osier may be cut every yeere, or every two yeere if you will. Doe, here haue you concerning Woods what needefullest are for our Countrymen to plant: for as for Woods of Cedar, Cipresse, and other strange Trees, it is not for our Husvands to busse themselues about: wet and rich grounds that are mête for Corne, is also good to be planted with Dakes, Beech, Willow, and Poplar, although the Dake and the Beech refuse hillie, and lighter ground: Sandie, and barren grounds, are good for Birch, Bramble, Broome, and Heath, as I haue sufficiently said before. Now perhaps you would haue me procéde with Coppisse Woods, that are continually to be feld.

For planting of
Osiars.

T H R A. I would: if it were no paine to you.

The second Booke, entreating

MARIVS. Coppisse, oz sale Wood, were first brought vp (as Plinie saith) by Qu. Martius. This kinde of Wood groweth commonly of his owne accord in Forrests, and watric places: but all Woods are not for this purpose, for some Trees there are which if you cut and poule often, will fade and dye, as the Ashe, the Juniper, the Cherrie, the Firre, the Apple, and the Birrie: and some againe if they be not cut, will perish: the Vine requirereth yerele cutting, the Olive, the Pittell, and the Pomegranate, each other yere. In cutting of them (as they are diuers) so is their order: for the Dake, as he groweth slowly, so is he not to be cut, before he be of seauen, oz eight yeres growth: and the nêrer the ground you cut him, the better he growes, though he may be polled seauen oz eight foete above the ground: The like is of the Beech, sauing that he may soner be cut. The great Willow, and the Poplar, are cut after one sort, as I shewed a little before: though the Osier may be cut euery two yere, oz euery yere. The Chestnut may be feld euery seauenth yere, both for felwell, oz for Vine staues. Trees are cut and sold sundrie wayes, for either they are feld close by the ground, oz the body is polde, when it comes to be of the bignesse of a mans arme oz moze, as the Willow is. Coppissed Woods are commonly seuered into so many parcels, as may serue for yerele felling, some still growing while others are a felling, and because some of them grow faster then other some, euery sort hath his place, and his season appointed. Some are felled euery fourth yere, some euery fifth yere, as the Willow, the Poplar, the Alder, and the Birch: some, once in seauen yere, as the Chestnut, and some in moze, as the Dake. It remaineth, that I now shew you the manner of felling of timber, and what timber is mêttest for euery worke.

THRA. I haue a great desire to heare what time is mêttest for felling of timber, which much auailleth (as they say) to the long enduring of it: after, I would know what timber is mêttest for euery purpose.

MARIVS. The season of felling, no doubt is to great purpose, whether it be for timber oz felwell: for such Trees as are feld either in the Spring, oz in Summer, though they seeme dry without, are notwithstanding full of moysture, and wetness within,

within, which in burning, will neuer make good fire: and therefore Coppisse and fire-wood, your best selling is in Winter: and for building, it is best cutting of your trees in December, and Januarie, the Moone being in the wane, from the twentie, to the thirty day. Yet are there some that say, they haue found by experience, that Trees being cut in Januarie, are full of Sap: and therefore thinke it better either to cut them before, or after. Cato saith, the best time is about the twelfth of December, for the Timber Tree that beareth fruit, is best in season when his seede is ripe, and that which hath no seede, when it pilles it is time to cut. Such as are flaued, seruing for Pillers of Churches or other round workes, must be cut when they spring: Shingles, and such as the Hatchet must flawe, are to be cut betwixt midde Winter, and the beginning, in the Westerne Wines. Plinie affirmeth the best season for felling of timber, to be while the Moone is in coniunction with the Sunne. Virruuius an excellent fellow in building, doth will you to sell your timber from the beginning of Autumne, till the time that the Westerne windes begin to blow, the which windes begin to blow (as Plinie saith) about the first Ides of Februarie: for in the Spring, all Trees are as it were with childe, and bend all their force to the putting out of their leafe, and their fruit. Since then they be Sappie, and not sound, by the necessitie of the season, they are made by the reason of their loosensse feeble, and of no force: euen as the bodies of women, after they haue conceiued, from their conception, till the time of their deliuerance, are not iudged to be sound, or perfitt. Inlike sort the Trees in Autumne, when the fruit and leaues begin to fall, the Rootes drawing from the earth their sufficient sustentance, are restozed againe to their olde estate: beside, the force of the aire in Winter doth fallen and make sound the Trees, and therefore it is then thought the best time to sell your timber. The manner of cutting of it is this, first to cut it till you come to the middle of the pithe, and so to let it stand, that the Sap that is in it, may descend and drop out: so shall not the moisture within putrifie, nor corrupt the timber, but passe clearly away. When you haue cutte it, and you see it drie that it hath left dropping, you may cut it downe, and so shall you be sure it shall best serue your turne. There are some Masters in building, that thinke it

The second Booke, entreating

best after you haue sawne out your timber in bozdes, to lay them in water for thre or foure daies, or if they be of Beech, for a longer time, eight or nine daies: and being ordered in this wise they shall neither (they say) be rotten, or worme eaten.

THRA. Now let vs heare what trees are best for timber.

MARIVS. There are diuers and sundrie kinds of timber: such as are barraine, are better then the fruitfull, excepting those sorts where the male beareth, as the Cipresse, and the Coznell: in all trees the parts that grow toward the North, are harder, and sounder, which are almost covered with mosse, as with a cloake against the colde: the worst are those that grow in shadowie and watrish places, the masser and better during, are they that grow against the Sunne: and therefore Theophrastus divideth all Timber into thre sorts, into clouen, squared, and round, of which the clouen doe neuer rent nor coame: for the pith being bared, dyeth by and dieth: they also endure long, because they haue little moisture. The squared, and the round, or the whole timber, doth coame and gape, specially the round, because it is fuller of pith, and therefore renteth and coameth in suery place. And such high Trees as they vse for pillers and maine postes, they first rub ouer with Bullockes dung to season them, and to sucke out the sappe: for the moisture doth alwaies coame sooner then the dry, and dry better to be sawne then the greene, except the Oake, and the Bore, that doe moze fill the teath of the Sawe, and resist it. Some againe refuse to be glued either with them selues, or any other, as the Oake, which cleaueth as soone to a Stone, as any wood, neither doe they well cleane, but to such as are of like nature: to be bozded, the greene is worse then the dry: the light and the dry, are harder to be cutte: for Sandes and Withes, the Willow, the Broome, the Birch, the Elm, the Poplar, the Vine, the clouen Kilde, and the Bramble are best: the Hasell will also serue, but the first is the Willow: they haue also a certaine hardnesse and sairennesse, meete to be used in graven workes. Among those that serue for Timber, are most in vse the Firre, the Oake, the Pine, the Larch, the Elm, the Elm, Willow, Cedar, Cypress, the Bore, Birch, Plane tree, Alder, Ashe, wilde Oake, Date tree, Beech, wilde Olive, Pastholme, Walnut, Maple, and Holly, and diuers others, used according to their nature,

nature, and the manner of the Countrie where they grow. The Firre tree, whereof I haue spoken befoze, giueth out Rozen, and his timber is meet for diuers woorkes, and greatly esteemed for his height and bignesse, whereof are made the Ship Patts, and Pillers for houses: For it is very strong, and able to abide great force: It is bled also in building, for great Gates, and Dore postes: in fine, good for any building within, but not so well enduring without dozes; and very sone set afire. They vrsed (as Theophrastus saith) in the olde time to make their Gallies and long Boates of Firre, for the lightnesse sake, and their Ships for burden, of Pine tree, and Oake. Of Oake, I haue spoken a little befoze, the timber whereof is best; both for inward buildings, and for the weather, and also well enduring in the water: Hesiodus would haue yokes made of Oke. The wilde Oke serueth also well in water woorkes, so it bee not nere the Sea: for there it endureth not, by reason of the saltnesse: it will not be pierced with any Augur, except it be wet befoze: neither so will it suffer (as Plinie saith) any Paile dyuen in it, to be plucked out againe.

The Firre.

The Mastholme, in Greeke *μαστος*, a Tree well knowne in Italie, the Wood whereof is tough and strong, and of colour like a darke red, meete (as Hesiodus saith) to serue for Plowshares: it may also bee made in Mainescot, and Paille bozve. The Larsh Tree, in Italian Larice, in Dutch Lerchenbaura, was in the olde time greatly esteemed about the Riuer Po, and the Gulfe of Veniz, not onely for the bitternesse of the Sappe, whereby (as Vitruuius saith) it is free from corruption and woormes, but also for that it will take no fire, which Mathiolus seemeth with his arguments to confute. It is good to sustaine great burdens, and strong to resist any violence of weather, howbeit they say, it will rotte with salt water. The Esle is a kinde of Oke, called in Latine *Esclus*, is sone hurt with any moisture: the Elme, the Willow, and the Poplar, whereof I haue spoken befoze, will very sone rotte and corrupt: they will serue well enough within doze, and for making of Hedges. The Elme continueth very hard, and strong, and therefore is meete for the Chækes and Postes of Gates; and for Gates, for it will not bowe, nor warpe: but you must so dispose it, that the top may stand

The Mastholme.

The Larsh

Stand

The second Booke, entreating

Stand downeward: It is met (as Hesiodus sayth) to make Plow handles of. The Ashe (as Theophrastus sayth) is of two sorts, the one tall, strong, white, and without knots, the other moze full of Sap, ruggedder and harder. The Bay leafe (as Plinie sayth) is a poyson to all kinde of Cattell: but hersin he is deceiued, as it should appeare by the likelihood of the name, *μλος*, *σμλος*, is the young Tree, whose leaues, (as is certainly tried) killeth all such beasts as chaw not the cud. Ashe, besides his manifold vse other wayes, maketh the best & fairest holsemens staves, whereof was made the staffe of Achillis, which Homer so greatly commendeth: it is also cut out in thinne bozdes. The Bæch, whereof I haue spoken befoze, although it be brittle and tender, and may be so cut in thin bozdes, and bent, as he seemeth to serue onely for Caskets, boxes, and Coffers: his colour being very faire, yet is he sure and trustie in bearing of weight, as in Arletrees, for Carts or Waines. The barke of the Bæch, was vsed in olde time for vessels, to gather Grapes in, and other fruit, and also for Cruets, and vessels to doe sacrifice withall: and therefore Curius sware, that he brought nothing away of all the spoile of his enemies, but one poze Bæchen Cruet, wherein hee might sacrifice to his Gods. The Alder is a Tree with streight bodie, a soft and reddish wood, growing commonly in the watric places, it is chiefly esteemed for foundations, and in water wozkes, because it neuer rotteth lying in the water: and therefore it is greatly accounted of among the Venetians, for the foundations of their places, and houses: for being driuen thicke in piles, it endureth for euer, and sustaineth a wonderfull weight. The rinde is pulled off in the Spring, and serueth the Diar in his occupation: it hath like knots to the Cedar, to be cut and worought in. The Plane tree is but a stranger, and a new come to Italie, brought thither onely for the commoditie of the shadow, keeping off the Sunne in Sommer and letting it in, in Winter. There are some in Athens (as Plinie saith) whose branches are 36. cubits in bredth: in Licya there is one for greatnesse like a house, the shadow place vnderneath containing 81. foote in bignesse: the timber with his softnesse hath his vse but in water, as the Alder, but drier then the Cline, the Ashe, the Hulbery, and the Chery. The Linder, in Græke *Φιλυρία*, and so in Italian, in Spanish *Latra*, in Dutch *Lynden*: this tree

Theophrastus

Theophrastus counteth best for the workeman, by reason of his softnesse: it breedeth no wormes, and hath betwixt the Barke and the Wood, sundry little rindes, whereof they were wont in Plinies time to make Ropes & Withes. The Byrch is very beauefull and faire: the inner rinde of the Tree, called in Latine Liber, was vsed in the olde time in stead of Paper to write vpon, and was bound vp in volumnes, whereof booke had first the name of Libri: the twigs and bowes be small, and bending, vsed to be carried before the Magistrate among the Romanes, at this day terrible to poore boyes in Scholes. The Elder tree, called of Dioscorides *AKTH*, in Latine *Sambucus*, in Italian *Sembuco*, in Spanish *Sauco*, in French *Suseau*, in Dutch *Hollenter*, doth of all other trees swiftest and easiest grow, as experience, besides Theophrastus doth teach vs, and though it be very full of pitch, yet the wood is strong and good: it is hollowed to diuers uses, and very light staves are made of it. It is strong and tough when it is drye, and being laid in water, the rinde commeth off as soone as he is drye. The Elder wood is very hard and strong, and chiefly vsed for Boare speares, the rafe (as Plinie sayth) may be made in thin bozdes. The Figge tree is a tree very well knowen and fruitfull, not very high; but somewhat thicke (as Theophrastus sayth) a cubite in compasse, the tymbre is strong, and vsed for many purposes, and sith it is soft, and holdeth fast whatsoeuer stikes in it, it is greatly vsed in targets. Wore tree, in Italian *Boxo*, in Spanish *Box*, in French *Bouys*, in Dutch *Bullbaum*, an excellent Tree, and for his long lasting; to be preferred before others. The Wore that turned is, (saith Virgill) *Juniper*, called both of Theophrastus and Dioscorides *Aegdis*, because it driueth away vermine: for with his saour, *Toades* and *Snailles*, and such like, are driuen away, in Latine it is called *Iuniperus*, in Italian *Ginipro*, in Spanish *Euebro*, in French *Geneura*, in Dutch *Wachoter*: it is very like to Cedar, but that it is not so large, nor so high, though in many places it groweth to a great height: the timber whereof well endureth a hundred yeeres. And therefore Hannibal commanded that the Temple end of Diana should be built with rafters and beames of Juniper, to the end it might continue. It also keepeth fire a long time, in so much as it is said, the coales of Juniper kindled, haue kept fire a yeere together: the

The second Booke, entreating

The Cedar. the Gumme whereof our Painters vse. The Cedar Tree, in Latine Cedrus, and almost like in other tongues: the hardnesse of this Timber is onely praised, and that it will neuer rotte, nor be woyme eaten, but continue euer. Salomon built that noble Temple of God, at Hierusalem, of Cedar: It is very meet for the building of Pallaces and Castles: the Cedar, the Eben, and the Oliue tree, doe neuer thinke nor coame. Images of Gods and Saints were alwayes made of Cedar, because it euer yeeldeth a moisture, as though it sweat. Theophrastus writeth of Cedars in Syria, of foure elles and moze in compasse. The Rozen and Pitch of the Cedar tree, is called in Greeke κέδρηα. The Cypresse, and the Pine, doe endure a long time without cyther woyme or rotting. Plinie commendeth Gates of foure hundred yeeres olde. The Pine (saith Theophrastus) is of a great strength, and very meet for the straightnesse and handsomnesse, to be employed in building. The Walnut tree is a great tree, and commonly knowne, whose Timber is much vsed in selings, and tables. Theophrastus writeth, that the Walnut tree before it falleth, maketh a certaine kinde of noyse, which it once happened in Anandro, the people being greatly afrayd, fled sodainely out of the Bathes. The wilde Oliue, in Latine Oleaster, in Italian Oliue Saluatico, in Spanisch Azenuche, in French Oliue sauuage, in Dutch Wilder Olyboum, of his Wood is made the hastes and handels of wimbles and Augurs. Holme, or Holly, is a Tree whose leaues are full of prickles, round about the leafe, and the barke, being both continually greene, the berries like the Cedar: of the rinde and rotes they make Birdlime: the Wood is very hard, the branches will well winde and bowe, and therefore serueth excellent well for quickset hedges: the Dutchmen call it Hulsen. The Maple, called by Theophrastus σφενδαμνος, in Dutch Masselterbaum, for the beautie of the wood is next to the Cedar, hauing a very sayze and pleasant graine, of the resemblance called Peacocks taile: with this wood Tables are couered most gorgerous to the eyes, and other fine woorkes made, specially of the knobs or wens that grow out of it, called Bruscou and Molluscu: of which the knobs hath the fairer and the moze courled graine. Molluscu is a moze open graine, and if so be it were of sufficient breadth for Tables, it were to be preferred before the Cedar:

Cedar:

Cedar : now it is but seldome scene, and that in writing tables,
 or about beds. There is also a knob, or a wen, growing upon the
 Alder, but a great deale worse then that of the Maple. The Date
 Tree, whereof wee haue spoken befoze, hath a very soft wood. The Date
tree.
 The Corke, his timber is tough : but now for a farewell, I will
 shew you what workes every timber is meet for. The Firre, the
 Pine, and the Cedar, serue for Ships, for Gallies: and Lighters The
Corke.
 (as Theophrastus saith) are made of Firre, for the lightnesse
 sake: Ships of burden, are made of Pine. Upon the French What turn
each tim-
ber serues.
 and Germanie seas, they chiefly vse Oke about their Ships: the
 selfe same timber also serueth well for building of houses, specia-
 lly the Cedar, and the Cypresse. The Firre, the Poplar, the For Ships.
 Ash, and the Elm, are meet for the inner parts of the house,
 but they serue not so well in the weather, as the Oke doth. For For houses
 conuencances of water, the Alder, the Pine, and the Pitch tree, are For water-
courses.
 best made in Pipes : being well covered in the earth, they last
 a wonderfull while, but if they lie vncouered, they sooner perish:
 The Oke also, the Beech, and the Walnut, endure very well in
 the water. The Timber that longest endureth, is the Oliue, the
 Oke, the wilde Oke, and the Mastholme: For as Plinie witness-
 seth, the Oliue hath bene seene to stand two hundred yeeres, the
 like the Cedar, and the Cypresse, as hath bene said, befoze : for
 Rafters and Portiffe yeeres, the Elm, and the Ash, by reason
 of their length serues best. The best to beare weight, is the Fir, For bea-
ring of
weight.
 and the Larch, which howsoeuer you lay them, will neither bend,
 nor breake, and neuer faile, till wormes consume them. Contra-
 rwise, the Oliue tree, and the Oke, will giue and bend, and so will
 the Poplar, the Willow, the Elm, and the Birch. The Date
 (a worthie Tree) bendeth vp against his burden. The Poplar
 on the other side giueth at every light thing. The Elm, and
 the Ash, though slowly, are easely bent. These also are easely
 wound and bent: the Willow, the Birch, the Worme, the Oke,
 and the Oken bordes. Shingles, to couer houses withall, are best For Shin-
gles.
 made of Oke, Beech, and such others as beare Mast: and also of
 such as yeld Rozen, as the Pine, and the Pitch tree: the Pitch
 tree, and the Oke, serue best for Cups, Tankards, and such like.
 Those that are cut for Maincot and thin bordes, the Certe tree,
 the Terebinth, the Maple, the Bore, the Date, the Mastholme,

The second Booke, entreating

- the roote of the Elder, and the Poplar. For the beautifying of
For tables Tables, serueth chiefly the Maple, the Ash, the Walnut, and
 sometimes the Cherie, and the Pearre: but the pretiousest are the
 Cypresse, and the Cedar Tables. For Arretrees, Wholes, and
For Axel- Spoakes, serueth the Oke, the Maple, and the Birch. Virgill doth
trees. also appoint the Cedar, and the Cypresse to this vse. Hercof they
 make the Spoakes of Wholes, and hercof Carts and Waines.
 The selfe same Timber also serueth (as Heliodus saith) for
Yokes and Plowes, Pokes, and Wagons: but that hee addeth hereunto
plowes. the Ashe, & the Cerre tree, and as the Ashe for his softnesse, so the
 Pastholme for his hardnes. For Pullies, Wimbles, Sheathes,
 and Pallets, the nextest are the wilde Olive, the Bore, the Past-
 holme, the Hedlar, the Elme, the Ashe, the Maple, and the Bram-
 ble: but the greater sort of Pallets, or Boxes, and the Wholes,
 and Pullies for Hills, and Wels, are made of Pine, and Wal-
 nut tree. Caro would haue the Waines and Carts made of Holly,
 Bay, and Elme. Hyginus would haue the handles, or steeles of
For Haffs Husoandmens toles, made of Dogge tree wood, Holme, Cerre
and Han- tree, and (which we haue comunonly in vse) Bore. Targets (as
dles. Theophrastus sayth) made of Willow, and Vine, for being pierced
For Tar- they close the harder together: but the Willow is the lightest
gets. and therefore the better. The Figge tree also, and the Linde,
 the Spruce, the Poplar, and the Elder, serue as well for Targets.
For cha- The best wood for Horsemens staues is the Ashe, and (as Virgill
sing staues saith) for vallant staues, the Yirtill: the Elwe tree serueth (as the
 same Virgill witnesseth) for Bowes:

The Ewe Tree for the Persian Bow they bend.

- For Gates, they the Elme: for Hampers, or Baskets, all such as
 easily bend. For Cupplings and Rafteres of houses, the Elme:
 and the Ashe for thin boyd: the best to cleaue, the Firre, the Pop-
 lar, and the Birch: for long during, and abiding the weather, and
 standing in water, the Oke is commended, for which the other
 serue not, saue for the water, the Birch, and the Alder: for fire,
 and light, are used the Firre, the Pitch tree, and the Pine. The
For water best coales are made of the softest wood, & the Oke, and the wilde
workes. Oke: but the finers rather desire the coales that are made of Pine
 tree, because they better abide the blowing, and die not so fast as
 the other. The Cerre tree, though the tymer be of no great vse,
 yet

yet serueth it well to make Coale of for the Brazze Forges, be- For Coa-
 cause as soone as the Bellowes leaue, the fire ceaseth, and there is ling.
 little wast in it : but for building, the timber thereof is altoge-
 ther vnprofitable, because it doth easily breake, & moulder away :
 but being in posses vnhelwed, it serueth well enough within
 doore. The aptest to take fire, is the Figge tree, and the Oliue
 tree. The Figge tree because it is soft and open : the Oliue tree,
 for the fastnesse and the fatnesse. The Larly tree (as Virruuius
 saith) resisteth the fire, though Mathiolus (as I said before) go-
 eth about to disproue it. In all the bodiēs of trees, as of liuely
 creatures, there is skinn, sinewes, blood, flesh, veines, bones, and
 marrow : their skin is their barke, of great vse among Country
 people : the vessels that they gather their Vines, and other fruits
 in, they make of the barke of Linde tree, Firre, Willow, Beech,
 and Alder. The Cozke hath the thickest barke, which though he The barke
 lose, he dieth not, for so beneficiall hath nature bene to him, that
 because he is commonly spoiled of his barke, she hath giuen him
 two barks. Of his barke, are made Pantofles, and Slippers, and
 Floates for fishing Nets, and Angles : if the barke be pulled off,
 the wood sinkes : but the barke alwayes swimmeth. The next to
 the rinde in most trees, is the fat, the softest and the worst part
 of the tree, and most subiect to wormes : therefore it is commonly
 cut away. The sappe of the tree, is the blood, which is not alike in
 all trees, for in the Figge tree it is milkie, which serueth as a
 Kennet for Cheese. In Cherie trees, it is gumie : in Elmes, sal-
 tisly : in Apple trees, clammy and fat : in Vines, and Pearre trees
 watrish : they commonly spring the best, whose Sappe is clam-
 myest. The iuyce of the Mulberie, is sought for (as Plinie saith)
 of the Physicians. Next to the fat, is the flesh, and next to that
 the bone, the best part of the timber : all trees haue not any great
 quantitie of this fat and flesh, for the Boxethe Cornell, and the
 Oliue, haue neither fat, nor flesh, nor marrow, and very little
 blood : as neither the Seruise, and Alder, haue any bone, but
 both of them full of marrow. Keeses for the most part haue no
 flesh at all : in flesh of trees, there are both veines and arteries,
 the veines are broader, and fairer : the arteries, are onely in such
 trees as will cleaue, by meanes of which arteries it commeth
 to passe, that the one end of a long beame laied to your eare,

The second Booke, entreating

If you do but fillip with your finger vpon the other end, the sound is brought forthwith to your eare, whereby it is knowne, whether the peece be straight and euen or not. In some trees there are knots on the outside, as the wenne, or the kernell in the flesh of man, in the which there is neither veine, nor arterie, a hard knop of flesh being clong, and rolled by in it selfe: these are most of pice in the Cedar, and the Maple. In some, the flesh is quite without vaines, hauing onely certaine small strings, and such are thought to cleaue best: others, that haue not their strings, or arteries, will rather breake then cleaue: as the Vine, and the Oliue, will rather breake then cleaue. The whole body of the Fig is fleshie: as the body of the Mastholme, the Cornell, the wilde Oke, the Hulbery, and such others as haue no pith, is all bony. The graine that runneth ouerthwart in the Beech, was taken (as Plinie sayth) in the olde time for his arteries.

T H R A. There are other commodities beside the timber to be gathered of these trees.

M A R I V S. Very true: (soz as I said before) of the Pedlar, the Oke, the Chestnut, the Pine, and the Beech, these trees that grow in the Woods, besides their timber, beare fruit also, good and meete to be eaten. So of the Firres, the Pitch trees, and the Pines, we gather Rozen and Pitch, to our great commoditie and gaine: as of the Oke, the Beech, the Chestnut, the Pedlar and the Pine, we haue fruit both meet for man, and also good for feeding of Hogs, and other Cattell. In time of dearth, both our forefathers, and we, haue tried the good seruice that Acornes in bread hath done, yea, as Plinie and others haue written, they were wont to be serued in amongst fruit at mens tables. Neither is it vnknowen what great gaines some countries get by Acornes, Rozen and Pitch: The Gall also groweth vpon these Acorne-bearing Trees, wherof I haue spoken before. Amongst all the trees out of which runneth Rozen, the Tarre tree, a kind of Pine, is fullest of sap, and softer then the Pitch, both meet for fire, and light, whose bordes we vse to burne in stead of candels. The Cedar sweateth out Rozen and Pitch, called Cedria. Moreover, of Trees, is Birdlime made, the best of the Tarre tree, the Mastholme, and the Chestnut, specially in the Woodes about Sene, and nere the Sea side, where they are carefully planted in great

great plentie, by the Birdlime-makers: For they gather the berries from the trees, and boyle them till they breake, and after they haue stamped them, they wash them in water, till all the flesh fall away. Plinie affirmeth, that it groweth onely vpon Oles, Mastholme, Skaddes, Pine trees, and Firre. Birdlime is also made of the rootes of certaine Trees, specially of the Holly, whose rootes and barkes withall they gather, and lay them vp in trenches, couered with leaues in a very moyst ground (some doe it in dung) and there they let them lie till they rot, then take they them out, and beat them, till they ware clammye, and after wash them in warme water, and make them vp in balles with their hands: it is bled (beside other purposes) for the taking of Birds. Besides all this, there sweateth out of Trees a certaine Gumme knowne to all men, as of the Chery tree, the Plome tree, the Juniper, the Oliue, the Blackthorne, the Iuie, and Almond. Out of the Juniper, cometh vernish: out of the Pirthe, Storax: out of the white Poplar, Amber. Plinie writeth, that Amber cometh out of certaine Pine trees in the fat, as a Gumme doth from the the Cherie tree. And thus these things that I haue here at your request declared, touching the order of Planting and sowing, I beseech you take in good woorth: you heare my wife calleth vs to Supper, and you see the shadow is ten foote long, therefore it is high time we goe.

Vernish:
Amber.

THRA. I giue you most hartly thanks that you haue thus friendly entertained mee in this your sayre Orchard, with the sweet description of these pleasant Hearbes and Trees.

IULIA. Sir, your Supper is ready, I pray you make an end of your talke, and let the Gentleman come in here into this Arbour.

MARIVS. Come let vs goe.

Soli Deo laus & gloria, per
Christum Iesum.

The end of the second Booke.



The third Booke: Of Feeding, Breeding, and Curing of CATTELL.

HIPOCONVS. EUPHORBVS. HEDIO. EVMÆVS.



That the breeding and feeding of Cattell is a part of Husbandry, and nere ioyned in kindred to the ticulture of the ground, not onely appeareth by Virgill, the Prince of Poets, who hath in his Georgickes thzoughly set forth the order thereof, but also by the witnesse of the moze auncient Philosophers, Xenophon, and Aristotle. The like doth our common experience at home daily teach vs: for albeit the trade of Tillage and keeping of Cattell is diuers, and the manner of occuppying many times contrary the one to the other: as where the Grafter and Bræder, requireth a ground full of Grasse and Pasture, the Husbandman on the other side, a ground without Grasse, and well tilled: yet in these their diuers desires, there appeareth a certaine fellowship & mutual commo- ditie redounding in their occuppying of one the other, which Fundanius in Varro, doth seeme by an apt comparison to proue: as in a coup'le of Shalmes, or Recorders, saith he, the one differeth in sound from the other, though the musicke & song be all one (the one sounding the Treble, the other the Base) in like manner may we terme the Grasters trade the treble, & the tillers occupation the base, following Dicarchus, who reporteth, that at the beginning, men liued only by breeding & feeding of Cattell, not hauing as yet the skill of plowing and tilling the ground, nor planting of trees.

After

Afterwards in the lower degré, was found out the manner of filling of the ground, and therefore beareth the base to the sower, in that it is lower; as in a couple of Records, the base to the treble. So this vsing to keepe cattell for plowing, cartiage, dunging of our ground & other commodities: and on the other side, to till the ground for seeding & maintenance of our cattell, it comes to passe, that though the manner of occupying in tillage, and keeping of cattell be diuers, yet one of them serueth the turne of the other, that as it seemeth, they cannot well be asunder: for without the seruice of Horse and Oxen, we can neither plow nor dung our ground. Chaffe, Straw, and other offall of corne is matter to be spent vpon the ground, then to be sold, both for the Farmers behoufe, and the Lords, and better bestowed vpon the household cattell, then vpon the forreiners. Besides, the dung of the cattell enricheth the ground, and bringeth great increase: and whereas there is no place (as Columella saith) but in the tillage of the ground, they haue as much neede of cattell, as men: the cattell serue not onely for the tilling of the ground, but also to bring in corne, to beare burdens, carry dung for the ground, and also for breed, and increase of the Stocke: whereby they haue their name Iumenta, of helping, because they helpe and further vs, either in our labours, by plowing or bearing. Neither is it onely sufficient to nourish and bring vp this kinde of great cattell called Iumenta, but also the other lesser sort of Beastes, as Sheepe, Swine, Goates: and of Fowles, Geese, Peacocks, Duckes, Pidgeons, Hennes, Chickens, and other Poultrye, and things belonging to Husbandry, wherewith the good Husband, beside his owne sustenance maketh great gayne: and if the ground be for it, and Pales sauourable, there ariseth oftentimes as great profit, as in sowing of Corne, and that with smaller charges. For a p^{ro}ue that feeding is gainefull, the words Pecunia, money, and Peculium, substance, or riches, being both deriued from the Latine name of cattells, may very wel serue: for in the old time they vsed their cattell instead of money, and their common penalties and fines, taken in cattell, the greatest was thirtie Oxen and two Sheepe, euery Ox valued at v. s. vi. d. and euery Sheepe at vi. d. The smallest was a Sheepe: the very like is yet obserued with the noblest and warlikest people, whose substance lyeth altogether in cattell.

The third Booke,

The wor-
thinnesse
and anti-
quite of
keeping of
Cattell

Cato being once asked by what part of husbandry a man might soonest be made rich? made answer, By Grazing: and being asked againe, which way he might get sufficient livelihood: he answered, By meane Grazing. Moreover, that the worthynesse and first originall of keeping of Cattell is of greatest antiquitie, and that the trade thereof hath alwayes, from the time of the Patriarks hitherto, bene counted most honest, as well the Scriptures, as prophane Histories doe witness, which kinde of life, how acceptable it hath alwaies bene to God, by those that liued in the first world, doth plainly appeare. The Scripture sheweth how graciously the Lord accepted the sacrifice of Abel, a keeper and feeder of sheep, besides, Seth, Noe, Abraham, Lot, Iacob, Iob, Amos. Holy and blessed men are commended for keeping and feeding of Cattell, whereby attayning to great wealth, they sustayned themselves, their Wiues, their Children, and their huge Families. The Sonnes of Iacob, when as they were demaunded by the King of Egypt what manner of life they ledde: made answer, That they were feeders and keepers of Cattell. From which trade, Lot, Moses, Saul, and David, were by the will of God aduanced to the Crowne, as among the Gentiles the most ancient, and famous Princes were, some of them brought vp by Shepheards, and some Shepheards themselves. Romulus and Cyrus, being mightie Emperours, were brought vp among Shepheards. Besides, Valerius Maximus, Constantine, Probus, and Aurelianus, came all from the Ore-stall, to the Imperiall Seate. Homer commendeth Vlises his Swineherd, for his great valiance and noblenesse. That the valiant and noblest people haue professed this trade, the Italians, Germanes, and the Switzers can testifie, whose countries being now grown to more delicacie then they were wont to be, were wont alwayes, when their doings were most famous, to glorie and vaunt themselves of this life, as at this day the godliest and wisest doe. And therefore the ancient writers, as well Grækes, as Latines, doe count the chiefest wealth to be in the number of Sheepe, Cattell and Fruit: for which estimation the Cattell were supposed to be cladde in Golden Coates: whence sprang first the fable of the Golden Floe of Colcos, which Iason and his companions attempted to fetch, and of the Golden Apples, kept by the daughters of Atlas.

Besides

Besides, the signes of Heauen, the Seas, Mountaines, and Countries, doe beare their name of Beasts: among the Stars, the Ramme, the Bull: the Mountaine, Taurus: and the Sea, Bosphorus. Italie tooke his name of Calues. Moreouer the keeping of Cattell is the worthier, in that it hath some resemblance of the state of a Governour: and therefore the Prophets in their Oracles, and Poets in their verses, doe oftentimes call Kings and Princes by the names of Shepheards, and feeders of the people. Yea, the Lord of the whole world, doth call himselfe a Shepheard. Since it appeareth by these examples, of what worthinesse keeping of Cattell is, and how nere it is linked with tillage, I haue here thought good, after the entreating of Tillage, Gardening, and Orchards, to describe as briefly as I can, the order and manner of keeping of Cattell: which skill though Varro deuiddeth onely into thrie parts, I haue deuidded into foure. In the first part I put the great Cattell for burden, as Horses, Asses, Mules, and Camels: in the second part, the lesse sort, as Sheepe, Goates, and Swine: in the third, such things as are belonging to the keeping and safegard of Cattell, not for the profit they yeild of themselues, but for their necessary vse, as Shepheards Dogs, and Cats: of these thre parts, in this third Booke, I entreat off: the fourth I referre to the fourth Booke. Having thus declared the contention betwixt keeping of Cattell, and Tillage, with the worthinesse and antiquitie thereof, I meane now to prosecute such things as are belonging to the same. I haue brought in the the Pastors and keepers of euery kinde of Cattell, and resting themselues vpon the holy day in the greene grasse, and the Summers shadow, euery one declaring his skill and knowledge, according to his profession. The parties are, Euphorbius the Shepheard: Hippocomus the Horse-keeper: Hedio the Shepheard, and Eumeus the Swine-heard.

* EUPHOR. How sirra Hippocomus, whither wander you? Doe you not know that it is holy day, a day to dance in, and make merry at the Ale house?

HIPPO. Euery day is holy day with lazy and slouthfull marchants: it lieth me vpon to looke to my profit, to see whether my Horses feede well, and that they take no harme. The pastures are so burnt with the heat of Summer, that I am afraid for want

The third Booke,

of meate, they will seeke to breake into other grounds, and so hurt themselves.

EUPHOR. Why bring you not them into this field, where there is both a good croppen, and pretty store of grasse among the headgroves.

HIPPO. You perswade me not to the worst.

EUPHOR. Come on then, bid Matrix your boy bring hither your horses, and you your selfe, sit you downe vnder this Hasell, that will yeld vs both shadow and shute, and we will send for Eumeus, and Hedio, if you thinke good, and wee will passe away the time with such talke as we shall finde.

HIPPO. Agreed: Goe Matrix, fetch hither the Horses, with the Cotts and the Asses.

Of Hor-
ses.

EUPHOR. And you Eumeus, and Hedio, bring your heards together, and come hither, euery man shall lay downe his shot, as they vse in the Tauernes, but without money or any charges, declaring at large what belongeth to the Cattell he keepeth. Your Horses Hippocomus are yet in good plight. I saw the horses of our neighbour Agrius of late, which are leaner and barer a great way.

HIPPO. Peradventure they haue not so good looking vnto, though they neither want pasture, nor are much laboured, but mine on the other side, are continually laboured, and are not so well fed, but better looked vnto then my neighbours.

EUPHOR. Well, since both time and place requireth it, I pray you, let vs heare what you can say touching the charge and looking to of Horses.

HIPPO. Surely, I haue not so much money to sell, but I may well beat leysure, and therefore since you are so earnest with me, I will not denie your request: although that of this matter, an honest and learned Gentleman of England, Master Thomas Blundvile hath so thoroughly writtten to his commendation, and benefit of his Countrie, as there cannot be moze said: I refer you therefore wholly to him: notwithstanding briefly I will shew you my fancie. Among all other creatures that we vse in our labour, the Horse may worthiest chalenge the chiefeest place, as the noblest, the goodliest, the necessariest, and the trustiest beaſt that we vse in our seruice, and since hee seructh to so many vses, I should

Should here bestow some time in his praise, and in declaring his service, but for this, another time shall better serve.

EUPHOR. We onely here desire to know the signes of a good, and an excellent Horse, and the right manner of ordering him.

HIPPO. First, you shall know that Horses serve for sundry purposes. Some, for the Plow, the Cart, and the Packsaddle, others, for light Horses, Coursers, and Horses of service, others againe, for Stallions, and breeders: and therefore they must be chosen according to their service. Soldiers, and men of Warre, desire a fierce Horse, couragious, swift, and well coloured. The Husbandman would have his Horse gentle, large bodied, and meet for travell and burden. Notwithstanding, the breeding and bringing up of them, is almost one: for in their breeding, wee hope to bring them all to the Saddle.

EUPHOR. What things are most to be considered in their breeding?

HIPPO. He that hath a fancie to breed Horse, must first provide himselfe of a good Race, and then of good ground, and plenty of Pasture, which in other Cattell ought not to be so greatly obserued, but in Horses there must be speciall care thereof. And therefore, you must first see that your Stallion be of a good race, well proportioned, and framed in euery point, and in like sort, the Mare. Some reckon their goodnesse by their Countries, wherein they take for chiefe, the Genet of Spaine, the Courser of Naples, the Sarmatian Horse, the Peloponesian, the Turkey, and the Thessalian, but these serue chiefly for running, and swiftnesse. For largenesse of body, enduring of labour, and fitnessse for breeds, the best are to be had out of Freeland, Holland, and Artoys. The shape and proportion of the Horse, ought hardly to be considered, for the very looke and countenance oftentimes declareth the goodnesse of his nature. Therefore you must diligently consider his making, from the heele to the head, and first you must chiefly regard his feet: for as in viewing of a house, it is in vaine to regard the beautie of the upper Rumes, if the foundation be ruinous: so the Horse that is not sound of his feet, will neither serue the Souldior, the Husbandman, nor the Trauailer. In your looking vpon him therefore you must first consider his hooves,

The
Hoofes.

The third Booke,

that they be not tender and soft, but hard and sound, round, and hollow, that the hollownesse may keepe his foot from the ground, and sounding like a Cymball (as Xenophon sayth) may declare the soundnesse of the foote, for the hooft that is full and fleshy, is not to be liked, and the Horses that haue such hooftes doe easily halt, wherefore diners commend a Horse like the hooft of an Ass, the paterne next to the hooft, not too long, as the Goat hath, for shaking off his rider, and breeding of windgall, nor too short, for being hurt in stony ground. The legs and the thyes, sith they are the standerds of the body, they ought to be euen, straight, and sound, not gouty, with much flesh and veines, for such as haue their legges clad with much flesh and veines, they with great tourneyes grow full of windgalls, and swellings, which will cause them to halt, which legges at the first soling, are as long as euer they will bee, by reason whereof you may gesse what height the Horse will be of, being yet a Colt. The knees must be round, flexible, and small, and not bowing inward, nor stiffe, the thyes large and well brawned, his breast great and broad, his necke soft and broad, not hanging like a Goates, but vpright like a Cockes, and well reining, his Mane thicke, falling on the right side, some like it better on the left, his head small and leane, for a great and heauie head is a signe of a dull Jade, his mouzell short, his mouth wide, with large wrinckles, still playing with the Bit, and foming: as Virgill:

There stamping stands the steed,
and foomy Bridell fierce he champs.

- The mouth. The Horse that hath a dry mouth is naught: his cheekbones would be euen and small, for if they stand too farre asunder, he will be ill to be bridled, and the vneuenesse of the cheekes will make him headstrong, and neuer to rayne well, but to thrust out his head ill fauouredly, his eyes great, bluddy, and fiery, and standing out of his head, which is a signe of quicknesse, and liuelinesse: hollow & little eyes are naught, and blacke, or pale stars in the eyes are to be dispraised: these faults are best spied in the night by candle light. Columella commendeth blacke eyes. A wall eye is very good, such as they say Alexanders Bucephalus had.
- The eares. The eares must be short, standing vpright, & stirring, for the eares be

be the tokens of a Horses Stomacke, which if they be great and hanging, are signes of a Fade. The Nostrills must be wide, the better to receiue ayre, which also declareth a liuely courage: his Shoulders large and straight, the sides turning inward: the ridge-bone ouer the shoulders being something high, giues the Horseman a better seate, and the shoulders, and the rest of the body is stronger knit together, if it be double: his sides deepe, well knit behinde, and something bowing vp, which both is better for the horseman, and a signe of a great strength: his loynes, the broader they be, the better he listeth his forefeete, and followeth with the hinder, and his pannch shall the lesse appeare, which both disgraceth him, and burdeneth him: his belly must be gaunt, his buttocks large, and full of flesh, answerable to his breasts, and his sides: for if he be broad hanched, and well spread behinde, and goeth wide, his pace will be the surer, which we may perceine in our selues, if wee assaile to take vp a thing from the ground stryding, and not with your legges together, we take it vp with more ease and strength. His tayle would be long, bristlie, and curled, the length whercof is not onely a beautie, but also a great commoditie to him to beate away flies: yet some delight to haue them curtayled, specially if they be broad buttockt. In fine, the whole body would be so framed, as it be large, high, liuely sprighted, and well trusted. Some Horsemen would haue their Horse to be limmed after the propoztion of diuers beasts, as to haue the head and legges of a Stagge, the eares and tayle of a Fore, the necke of a Swanne, the breast of a Lion, the buttocks of a Woman, and the feete of an Ass. Virgill in his Georgickes doth very Clarkely describe the tokens of a good Horse.

The
nostrill.
The
shoulder.
The chine

The sides.
The loines

The belly.
The buttocks.

The tayle.

With head aduanced high at first, the kingly Colt doth pace,
His tender lims aloft he lifts, as well bebecmes his race. (way,
And foremost stil he goeth, & through the streame he makes his
And ventures first the bridge, no suddain sound doth him afray.
High crested is his necke, and eke his head is framed small,
His belly gaunt, his backe is broad, and brested big withall.
The bay is alwaies counted good, so likewise is the gray,
The white and yellow worst of all, besides, if farre away
There happen a noise, he stamps, and quiet cannot rest.

The third Booke,

But prauunceth here and there, as if some spirit were in his brest.
His eares he sets vpright, and from his nose the fierie flame
Doth seeme to come, while as he snuffes, & snorteth at the same,
Thicke is his mane, & on the right side down doth hanging fall,
And double chinde, vpon his loynes a gutter runnes withall.
He seraping stands, & making deep a hole, he pawes the ground,
Whiles as a loud his horned hoofe, all hallowed seemes to sound.

You see in how few verses the Poet hath expressed the properties of a good Horse: other conditions there be for which they be liked, when they be pleasant, first liuely, gentle, and tractable: For such, as Columella saith, will both better be taught, and better away with trauell. Xenophon accounteth it a signe of a good Horse, if after the wearinesse of his sourney he come to labour lustely: againe, we finde by experience, the better the Horse is, the deeper he thrusts his head into the water when he drinketh, and that (being a Colt) striueth to out runne his fellowes in the pasture, and as Virgill saith, leape first into the water, and passeth bydges, not tarrying for any vther, nor fearing the Ale.

E V P H. What colour in Horses count you the best? The Poet seemeth to mislike the white, which others againe, as I haue sundry times heard commend, specially in England, where they are well accounted of, and most esteemed.

H I P. Touching the colours, there are diuers opinions, and of all colours, lightly you shall finde both good and bad: so that the colour is not so greatly to be regarded, if he haue other tokens of a good horse, yet for beautie, and many times for goodnes, we make choise of colour. The best colours, as diuers suppose, are these, The roane, the white liard, the bay, the sozell, the dunne, the daple gray, the ashy white, the fleabitten, the milke white, the black, and the iron gray: the bay is most of price as far as I see at this day, and preferred by the Poet above the rest. The Frenchmen call the bay horse, Le bayariloyal, trusty Bayard: they are the better that haue a starre in the forehead, and the foote spotted a little with white: afozetime the daple gray, the flebitten, the mousedun, and the grisell were most esteemed, and such as came next to them, as the Iron gray, the bright sozell, the browne bay. Onely Plato commendeth the milke white, that Virgill disparageth.

Others

Others commend the blacke, specially if he haue either white starre in his forehead, or strake downe his face, or hath any white vpon his foote, the coale blacke without any white, is altogether misliked, the flea-bitten Horse proueth alwaies good and notable in trauell: the yellowish and the skand, or pied horses are discommended almost of all men, notwithstanding either of them (if they be well marked) proue oftentimes well enough, specially the yellowish, if he haue a blacke list downe his backe from the necke to the taile. The Stallion therefore would be of one colour, strong bodied, well limmed, according to the proportion afoze. The Mares would likewise haue the said proportion of the Stallion, specially to haue large bodies, faire and beautifull, of one colour, great bellied, with large and square breast and buttocks.

The Stallion.

The Mares

E V P. What Age count you best for bræde?

Age.

H I P. The Stallion may goe with the Mares when his ioynts and limbs be well knit and come to their growth, for if they be too young, they get but weake and wearish Colts: some vse to let them goe together at two yeres olde, but thre yeres olde is the better: the Stallion will serue you from that time till twentie yere, if hath bene siene that they haue gotten Colts till fortie, being helped a little in their businesse, for it is not yeres but skill that abateth lust, as Aristotle afoze Plinie wrote. Yet some thinke them not meete for bræde before the fourth or fifth yere, in which space they feede them lustely, to make them moze contragious, for the lustier they be, the better Colts they bring, neither would they haue vnder sixtē Mares, nor aboue twenty, for one Stallion. Herodorus writeth, that one Horse will well suffice twentie Mares, but the number ought not alwaies to be obserued, but sometimes moze, sometimes lesse, according to the state of the Horse, that he may the longer endure: a young Horse should not haue aboue sixtē or sixtē Mares with him: the horses must be sometime scouered for danger and hurting of themselves, hauing in the meane time good regard to the state of his body, for some be weaker and fainter then others.

E V P H. What age doe you thinke best for the Mare to goe to the Horse.

H I P P O. The Mares will conceiue, at two yeres old, but I take it the better not to suffer them till they be thre yeres olde, and

The third Booke,

and likewise I thinke them not meete for Colts after fenne, for an olde Mare will alwaies bring a dull and heaue headed Fale: they goe with Foale an eleauen moneths, and Foale in the twelfth.

E V P H. How can you know their age when you be doubtfull of it?

H I P. That may you know diuers wayes, but specially by the teeth, and those teeth that declare the age, the Grecians call *γναφους*, which teeth when he loseth, he loseth both estimation and sale. Aristotle affirmeth, that a Horse hath forty teeth, of which he casteth the thirtieth moneth after his foaling four, two aboue, and two beneath: againe in the beginning of his fourth yeere he casteth likewise four, two aboue, and two beneath, being full four, and going vpon his fifth, he casteth the rest, both aboue and beneath: such teeth as come vp againe be hollow: when he beginneth to be six yeere olde, the hollownesse of his first teeth is filled vp: in the seauenth yeere all his teeth are filled vp, and no hollownesse any longer to be seene: after which time, no iudgement of his age, by his teeth, is any more to be had: there are some that take vpon them to tell his age by the toynts of his taile, after the marke is out of his mouth. Palladius shewes, that a Horse when he begins to be olde, his temples ware hollow, his eie-bryes gray, and his teeth long. Aristotle saith, that the age of all foure-footed beasts may be knowne by the skinne of their Jawes: for if it be pulde vp and presently let fall againe, if it fall smooth, it declares a young beast, if it lie in wrinkles, it sheweth he is olde. A Horse liueth commonly twenty yeeres, some thirtie, or forty, and also to fiftie, as Aristotle saith, if he be of a good disposition, and well dieted: it is said there haue bene Horses that haue liued 75. yeeres, the Mare liueth not so long as the Horse, nor the Stallion, so long as the Horse that is suffered to runne amongst Mares: the Mare leaueth growing at five yeere old, and the Horse at six, or seauen.

E V P H. What time thinke you best for couering of Mares?

H I P. In the Spring, after the twelfth of March, I take to be the best, after the Spring in the rest of the yeere they are to be kept from the Horse, for hurting of the Horse: for the Mare after she hath conceiued, suffers the Horse no more, but beates,
and

and strikes him with her heels, yet in most places, they suffer their Stallions to runne with their Mares all the Summer long, and take it to be the best way for answering the Mares desire, for many times the Mare will not abide the Horse till Summer time, or August, and the August Colt proues commonly very faire, although the Colts that are foaled in the Spring, are not to be desired, because they runne all the yere with their dammes in good Pasture, and therefore it is best at that time to put the Mare to the Horse, for these creatures specially, if you restraine them, are most enraged with lust, whercof came at the first the name of that deadly poyson Hippomanes, because it stirreth vp a fleshy affection, according to the burning desire of beasts, which groweth in the forehead of the Colt, of the quantitie of a Figge, and blacke, which the damme doth straight, as sone as she hath foaled, bite off: and if she be preuented, she neither loues the Colt, nor suffers him to sucke, neither is it to be doubted, but that the Mares in some Countries so burne with lust, as though they haue not the Horse, with their oluue feruent desire, they conceiue and bring forth after the manner of Wydes, as the Poet noteth.

In furious lust the Mare exceeds all other beasts that be.

It hath bene said, that in Spaine Mares haue conceaued with the winde, and brought vp their Colts, but the Colts haue not lined aboue thre yeres. Aristotle writeth, that a Mares desire is quenched by shearing of her mane.

EUPH. What if the Mare will not take the Horse, is there no meanes to make her?

HIPPO. There are that rub her taile with Sea Onions, Pettels, or Madder, and so prouoke her to lust, sometime a scurvie Fade is put to her, who when he hath gotten her good will, is straight remoued, and a better Horse put in place. If the Horse be too slowfull, his courage is stirred vp by wiping her taile with a Spunge, and rubbing it about his Nose. If we would haue a Horse Colt, we knit the left stone of the Horse with a corde: and for a Mare the right. The like is to be obserued almost in all other beasts.

EUPHOR. How often must she be Horsed after she take?

HIP. They take not a like, some are sped at once, some twise, some

The third Booke,

some more. It is said, a Mare will not suffer above fiftene times in the yere: being oftentimes satisfied with fewer. They must be put to the Horse at times, twice a day, in the morning, and at night: when they are sped, it appeareth by refusing, and striking at the Horse. They say: that there is amongst these beasts a great regard of kindred, and that you can hardly force the Colt to Horse the Damme: for those whereof they report, that where as a certaine Horse-keeper did make his Horse, by covering his eies, to cover his Damme, the cloath being puld away, when he saw what he had done, he ranne upon his Keeper, and slew him: as soone as she is covered, the Mare must out of hand be beaten, and forced to runne, least she lose that she hath receiued. Surely a Mare of all other beasts, after her covering, doth runne either Southward, or Northward, according as she hath conceiued either Horse Colt, or Mare Colt: her colour also doth change and become brighter, which when they perceiue, they offer her the Horse no more. Some after a few dayes if they doubt her, offer the Horse againe, and if she refuse and strike (as I said before) they iudge she hath conceiued.

EVPHOR. Must they be covered euery yere?

HIPPO. Such is our couetousnesse, as we seeke to haue them beare euery yere: but if you will haue good Colts, let your Mares goe to Horse but euery other yere, so shall they well answer your desire, howbeit the common vse is euery yere.

EVPHOR. We see Ases sometimes to cover Mares commonly, and thercof is engendred the Foale, and soaled in the ri. moneth, as shall be said hereafter. Some say it is best to cut the mane of the Mare that shall be covered of the Ass, though others hold opinion that it shall abate her lust. The Mares that be with foale, must be well looked vnto, and put in good pasture. And if through the colde Winter, pasture be wanting, they must be kept in the house, and neither laboured nor ialled up and downe, nor suffered to take any cold, nor to be kept too many in a straight roome, for casting their Foales, for all these inconueniencies will hazard their Foales, yet to trauel them moderately, will do them rather good then harme, for too long rest will cause them to be relesse, and to tyer sooner. Aristotle writeth, that the Scythians did vse to trauell their Mares great with foale, after the time they began

began to stirre, supposing their foaling should be the easier, but good heed must be taken, that their bellies be not hurt with any thing while they are with foale: but if so be the Mare be in danger, either in casting her foale, or in foaling, the remedy is, Polipody stamped, mingled with warme water, and given with a horne: it is said that the smell of a Candell snuffe, causeth them to cast their foales: you must euery yere ouer-see your Mares, and such as be vnprofitable, or barraine, must be put away, for from their first foaling they are not to be kept aboue ten yeres, at which time they are lusty enough, and may be well sold, but so wil they not be after: The young foales are not to be handled with the hand, for they are hurt with the lightest touch that may be. It must be sene vnto, that if the Mare be housed, there be room enough for her and her foale, and that the place be warme enough, that neither the cold harme it, nor the Damme ouer die it, and therefore the place must be well chosen, that is, neither too hot, nor too colde, and afterwards by little, you must bring vp the Colt: when it groweth to be something strong, it must be put to pasture with the Mare, least the Mare receiue hurt by the absence of it: for chiefly this Beast of all others, most esteemeth her young, and if she be kept from it, taketh harme. The foale that lackes his Damme, is often brought vp, of other Mares, that haue Colts: the Mare must goe in very good pasture, that the Colt may haue store of milke. Being five moneths olde, when you bring them into house, you must feede them with barley floure and bzaune: at a twelue moneth olde, you must either put them into good pasture, or feede them with Bzaune, Chaffe, and Hay. Varro will not haue you to weane them, till they be two yeres olde: and though I like not too soone weaning, yet we vse commonly to weane them at five or sixe moneths old, and to let them runne in good pasture, which custome proueth not amisse. Where ouer, as long as they runne with the Damme, you shall doe well to handle them now and then, least, when they be put from the Damme, they ware wilde: they must be taught to be gentle, and not onely to abide a man, but to couet his companie, and not to be afraid at euery strange sight, nor at euery noise, but to come to it. Xenophon saith, we must (as men) prouide Scholemasters for our Children, so likewise teachers for our Horses, & appoint how we

will.

will haue them broken: for as their seruice is diuers, so must be their breaking. But hereof we shall speake more hereafter, when we entreate of Hoſeſmanship, and breaking of Hoſes: onely now we will deale with thoſe that ſucke, and ſerue for the Plow. To make them gentler, the bridles, and other Hoſe harneſſes muſt be hanged by them, that they may the better be acquainted with them, both with the ſight, and the gingling. Now when they be well tamed, and will ſuffer to be handled, Varro would haue you lay a Boy groueling vpon them twiſe, or thriſe, and after to beſtride them, and this he would haue done, when they be threë yēre olde, for then they grow moſt, and begin to be great brawned. There be that thinke a Hoſe may begin to be handled at a yēre and a halfe old, and Varro, at threë yēre old, when their prouender is giuen them: but we uſe commonly after two yēres to labour them gently, firſt in harrowing of new plowed land, which is good both for their ſoote, and their pace, and alſo with plowing, & ſuch like exerciſe: whereby we uſe to acquaint them with colde and heate, in drawing together. It muſt be ſeene to, that they be euen matched, leaſt the ſtronger ſpoile the weaker, while he dreadgeth the rating and whipping. Hoſes take leſſe harme with drawing then with bearing. Thus muſt they be uſed to reaſonable trauell, by reaſon whereof, they will be the harder, and not ſo lightly take harme: but herein muſt be great diſcretion.

EVP H. What ſay you to Geldings: for in theſe parts we uſe Geldings moſt.

Stables.

HIPPO. They ſerue for ſome purpoſe: but he that will haue a good Gelding, muſt geld (as they ſay) a good Hoſe; they are cut at a yēre old and elder: I my ſelfe haue cut them at five yēre old, and ſix yēre old: in cutting they loſe their ſtomacke: you muſt loke that they be in good plight when you cut them; for as they are at their cutting, they commonly continue. The Mares alſo uſe to be ſpayed, but not often, and with great danger.

EVP H. What manner of Stable would you haue, for I haue ſometimes heard, that the Stable is of great importance?

HIPPO. Your Stable muſt be built in a drye place, for wetting the Hoſes hoſe, which you ſhall auoide if you planke it with good Oken planks, or (which Xenophon would rather haue you doe)

doe) with round paving Stone, keeping it alwaies cleane from dung, and straw, and after laying fresh litter, so as they stand hard, and lie soft. Xenophon would haue the Stable so placed, as it may alwayes be in the Masters eie, and to be lightsome, least the Horse being vsed to the darke, his eie dazell at the light. Some thinke they will be the gentler, if they be vsed to the light, & the fairer, if they haue the Sun at the rising in Summer time: let as much aire come to them both day & night as you can. In Winter your Stable should rather be warme, then hot, and therefore your Stable must stand toward the South, but so as the windowes may open toward the North, which being kept shut in Winter, may be warme, and opened in Summer, you may let in the cole aire.

E V P H. The like we vse in our Dre stalls.

H I P P O. Besides, whereas the bodics of cattell, haue neede of rubbing, as well as mens bodics, for many times it doth the Horse as much good to be stroked downe the back with your hand, as to feed him. The Horse is to be continually curried, in the morning, at night, and after his labour. In currying of them we must begin at the head, and the necke: for it is a vaine thing to make cleane the lower parts, and leaue the other soule. It is good also to obserue due times for his feeding, his watering, and his trauell.

Thus much of his exercise. Now followeth to speake of his diet: and because we haue spoken before of his pasture, we must also say somewhat of his other feeding. The better a man would haue his Horse to proue, the better must he looke to his meate for that good feeding (the Country people say) is a great helpe to the goodnesse of the Horse. If the Horse be young (as I said before of Colts) he must be fed with grasse, chaffe, and hay: if he be elder and meet to trauaile, his food must be the drier, as Chaffe, Barley, Dates, and Hay. Chaffe doth not so well nourish, by reason of the drinesse, but it keepes the body in good plight: and because hard meate is hardest of digestion, it is therefore to be giuen to those that labour. The Stock or Stud, must be pastured in laege pastures and marshes, as also vpon mountaines, and hilly ground, but euer well watered, not dry, rather champion then woody, and rather soft swat grasse, then high and flaggy: if the pasture be too short, they sooner weare their fore-teeth, and are toothlesse before their full age. And where as euery kinde of creature is naturally moist, a Horse

Currying.

Diet.

The third Booke,

ought chiefly (whether he be young, or old) to be fed with moist pasture, for the better conseruation of his naturall temperature. Some would haue you in no wise to giue your Horse grasse in the Spring time, but in June, or the fall of the leafe: they would haue you giue them grasse with the dew vpon it, and in the night season, Dates, Barly, and Hay. Howbeit, in the colder Countreies, in Germany, Fraunce, England, where the pasture is very good, they doubt not to scowze their Horses with greene grasse and wēdes of the meddowes: and in the hotter Countreies, they doe the like with greene blades of Wheat, or Barly. Some vse to giue them Apples shared in pīeces, to scowze them withall, and thus much of scowring of Horses. Generally, whosoener will haue his Horse healthy, and able to endure trauell, let him feed his Horse with Dates, mingled with chaffe or straw, so shall he be temperately and well fed, and if so he labour much, giue him the more Dates. His meat must be giuen him as some thinke best, in a low Danger, let so low, as they are forced to eate their meat with some difficulty or trauell, which they say is to make them bend their necks: by which exercise both the head and the necke groweth bigger, and they will be the easier to be bridled: besides, they will be the stronger, by reason of the hard setting of the soze-fete. Howbeit, in some places, they vse high standing Dangers: after what sort soeuer they be, they must alwaies be kept cleane, and well swept befoze you cast in their meate. Their Prouender though diuers Horse-courlers that liue by sale of Horse, doe sādē them with sodden Rie, or Bean-meale sod, pampering them by, that they may be the fairer to the rie: yet is it not good food to labour with. The best Prouender that is, is Dates, and for default of them, Barly: you must beware you giue them neither Wheat, Rie, or any dry pulse: their Prouender must be giuen them rather often, and litile, then once or twise a day in great portions, least you glut them therewith: they are vsed to be fed commonly five times a day, when they stand in the Stable, keeping an equall number of houres betwēne the times: when they trauell, you may giue them meate seldomer, but in greater quantity, & if theirournies be long, they must haue Prouender besides in the night, alwaies remembryng (as I said) that you glut them not. The better a Horse sādeth, the better will he labour. You must also beware that

that you giue him no prouender, neither Dates nor Barly, after any great labour, till he be thoroow cold: not withstanding you may giue him a little hay to coole his mouth. The hay must be sweet and well made, & thoroowly shaken, before it be cast into the racke: and specially seene to, that there be no feathers of any fowle amongst it. If the horse be very hot after his labour, let him be well couered, and softly walked till he be cold, before you set him vp: when he is set vp, lisset him well, least the coldnes of the ground strike into him: in any wise wash him not when he is hot, but when he is through cold, water him, and wash him, wiping him dry when you bring him in. If the Horse forsake his meat, some vse to stampe Garlick & Pepper, & to giue it him, rubbing his teeth well, till his stomack come to him: some would haue a clout wet in salt water, tyed vpon a stick, & thrust into his Iawes. In watering, you must looke well vnto him, for (as Aristotle saith) beasts do feed, & are nourished the better, if they be wel watered. Horses & Camels, do loue best to drinke a thick water, in so much as if the water be cleare, they will trouble it with their sæte: for the most part Bullocks againe desire a faire cleare water, & running. The same Aristotle also affirmeth, that a horse may suffer thirst foure dayes without drinke. Varro wils you to water your horses twice a day, which order we obserue, that is once in the morning, & againe in the afternoon: but in Winter, if they drinke but once a day, it sufficeth: before you water him, he must be well rubbed, and then led into the water vp to the knees, specially if he be leane, if he be fat, he may go the deeper. Notwithstanding there are some that hold opinion, they ought not to go so deepe, as their stoncs touch the water, specially if the horse be pong. After March, & the spring, it is very good to ride them vp & downe in some Riuer, which will exercise their legs, for the water drieth the legs, & restraineth the humoers from falling downe, and keepeth them from windgals: as some as they come from the water, you must with a little straw wipe them cleane, for the damp of the stable causeth inflammation in the horses legs that be wet. The water (according to Vegetius his minde) would be cleare, & springing, other like it a little running & troubled in a clay ground: for this water, by reason of the thicknes & fatnes, doth better nourish and sæde the horse, then the swift running streame: yet those horses that are vsed to the swift & cleare riuers,

The third Booke,

are commonly the strongest, and best travellers : and therefore it would be well considered how the horse hath bene accustomed : the colder the waters are, the lesse they nourish, the deeper a horse drinks, the fatter he grows : and therefore some Horse-courers use to wash their horses mouthes, first with water, and after to rub them with salt, to give them an appetite to their meate and their drinke.

EUPHOR. I pray you let vs heare some remedies for horses diseases, for (as Aristotle saith) a horse hath as many diseases as a man.

HIP. As touching diseases in a Horse, it is better to prevent them by good hōde taking, and (as Vegetius saith) to be more careful in keeping a horse healthy, then when he is sicke to cure him : which health you shall continue with ease, if you will obserue those things touching his dyet, his stable, and his labour, that I haue told you of before. Whosoeuer will haue a good horse, and keeps him in good estate, must oftentimes see him, come to him, handle him and stroke him : for that both makes him gentle, and giues him a fayre coat : and be still mindfull of the old prouerbe, The Masters eye maketh a faine horse : and to be short, to haue him so still in his sight, as he rather want his owne meate, than his horse should : for he that neglecteth his horse, neglecteth himselfe. To let him haue moderate exercise, and to ride him now and then (if the weather be faire) into the field, will doe him great good : the morning is better to labour him in then the euening, neither must you in Winter or in Summer ouer labour him : for being in a sweat, and after taking cold, he falleth into dangerous diseases. And therefore remember what I said, that whersoeuer you haue laboured him or ridden him, be sure you couer him with some cloth, and walke him softly, that he may be cold, before he either be suffered to eate or drinke : when he is cold, he may be led to the water and washed : so as when you bring him into the stable, you litter him well, and thoroughly rub him, and so giue him meate. If he be ouertravelled, the onely remedie is rest, and after his sweating, to wash his mouth in Summer with water and vineger, in Winter with brine : for the neglecting of these things, hath bene the destruction of many a good horse. Also, to poure into his mouth Wine and Oyle, in Summer, cold, in Winter, warme,

(as

(as Vegetius teacheth) and as we finde by experience, is very good: for it is commonly seene, that a tyred Horse (if necessitie forcéth a further iourney) with polyzing in a quart of good wine, will trauell lustilie. You must not suffer your horse to drinke after his iourney, till he be cold: howbest, if he sweate not too extremely, and be ridden some after, it is not so dangerous: it is farre better to let him thirst, then to giue him cold water if he be hot. If a horse haue long rested, he is not to be trauailed upon the sudden, either in gallopping, or long iourney, but to be laboured faire and softly at the first. A horse that is wearie or tyred, will be wonderfully refreshed, so as it would seme he had neuer bene trauailed, if he may swallow himselfe either in the stable, or other drie p^lts out of the winde and raine: and therefore Xenophon would haue nere vnto euery stable a place meet for their swallowing, wherein after their iournies, they may tumble themselues: for in so doing, they shew they are in health, & refresh themselues. You must loke diligently that they be well looked to at night, and that after their sweat, they be well rubbed and curried, and that they be not disquieted when they should rest. In winter they would be clothed with wollen, for taking of cold, and in Summer with Canuas, to keepe them from flies. You must beware that you iourney them not long without staling, but after you haue trauailed an houre, or such a thing, prouoke them to stale (by riding them out of the way) into some place where Sheepe haue dunged, or into some high grasse, ferne or stubble, which order was continually obserued by the best dyeter of horses, that cuer I knew in England, one Henry King, who hauing charge of that most worthy Gentlemans horses, Sir Thomas Chalenour, carried a faire company of Geldings from London to the Court of Spaine, who notwithstanding their long iourney thzough France, & the painefull passage of the Pyremies, by the skilfull diligence of their keeper, came thither in as good plight as they came out of England. And if so be you see he cannot stale, or staled with paine, you must bathe him with bath appointed for cold, that is, Dyle mingled with Wine polyzed vpon his loynes: also a House put into his yard, or rope put into his fundament, hath bene seene to helpe him. If this do not helpe, you must squirt in honey boyled thin, with salt into his yard. Some would haue the licour of the

The third Booke,

time Birumen squirted in: *Æliomus* writeth, that the Horse that cannot steele, is presently remedied, if so be a Maid strike him vpon the face with her girdell, the scete (which is the chiefe matter in a Horse) you shall alwaies keepe sound: if as I tolde you afoze, your Stable be well paved with round stone, or well planked and kept cleane: which done, you must stop his hoeses with Coluedung, or soz want thereof with horse dung watred, and his legges must be often rubbed with a strawne wispe. To cause the hoeses to grow, or to repaire the broken hoeses, take of Garlick heads seauen ounces, of Hearbe grace thre handfuls, of Allome beaten and sifted, seauen ounces, of Barrowes grease very olde two pounds, mingle all these with a handfull of Asses dung, boile them, and annoint the hoeses therewith. After their iourney, see you search their scete well, suffering no grauell, nor Alth to remaine therein, you shall well restrely their hoeses with the ointment afoze said. The ioynts, or the pasternes, would be well bathed after their trauel with warme wine, or an egge or two would be thrust into their hoeses, the legges themselues would be washed with warme Beer, or some like bath. If the Horse thrust out one of his scete, and stand not euen, it is a signe of some fault in the hoeses: the Horse halteth, either by reason of the spoiling of his hoeses in iourney, or by ill Quoring, or by wholsome humors falling downe, by low standing in the Stable, or by windgals. If the fault be in the shewing, strike vpon the head of every naille with the Hammer, and when you perceiue him to shrink, plucke out that naille, or polure vpon the hoeses colde water, and that naille that is first dry, pluck it out: if it matter, squese it out, and polure in Pitch well sodden with old Swines grease: you must also speedily open his hoeses beloto, that the matter (if it be full of corruption) may descend, leass it breake out aboue the hoeses, and so cause a longer time of healing. The signes of it be, if he hold by his foot, which if you do pare him to the quicke, and where you perceiue it to looke blacke, open it, and let out the matter: if he be hurt inward, and standeth but on his toe, it sheweth the fault to be in his hoeses: but if he tread equally with his foot, it declares the grieue to be some other where, then in his hoeses: if in his hauling he bowe not his ioynts, it is a signe the soze is in the ioynts. For all halting generally, mingle Hemp with the white of an egge, and stop the scete with hall,

withall, and after clay on the shoe: if it be a wound, put therein the powder of Oystershels, and Werdegrease to dry it vp, or the white of an egge, with Sote and Vinegar. The Cratches (as they commonly call them) is a malady that happeneth betwixt the Pasternes and the Hoofe, in the manner of a scab, and is ingendred of the damps of the Stable, while he standeth wet legged: the remedy whercof, is all one with the paines, which is likewise a sozance breeding about the ioynts, breaking the skinned, and mattring: taking away the haire, wash the soze with warme Beere, or with the broath wherein is sodden Gallowes, Brimstone, and Shæpes suet, which must be bound about the soze place morning and evening, or else Shæpes suet, Goates suet, Swines grease, Werdegrease, and quicke Brimstone, Solecarniack, and Sope, boiled and made in ointment, wherewith you shall anoint the soze twice a day, washing it first with warme Wine, and after it is dried annoint it, in the meane time keepe him out of the water: the Lees of wine is also sometime vled in the curing of the cratches. Windgals, which are swellings, and risings in the legs, are cured with cutting, and burning: some thinke they may be refrained and cured, by riding the Horse oftentimes vp and downe in some colde and swift streame, also by washing his legges with Salt, Vinegar, Swines grease, and Oyle, wrapping them vp certaine dayes, or by launcing, or scarifying they are cured: the outward sozes are healed by burning. If the backe be wrung with the Saddell, or otherwise hurt that it swell, Vegetius would haue you to seeth Onions in water, & when they be so hot as the Horse may suffer, to lay them vpon the soze, and binde them fast, which will allwage the swelling in one night. Item, Salt beaten and medled with Vinegar, putting to it the yolke of an egge, layed vpon the swelling, will heale it: besides, Arsmart stamped and laid to, doth presently allwage the swelling. If the backe be galled, wash it with Beere and Butter, or cast vpon it the powder of a Rome wall. There is a disease that is common in Horses, called the Tines, which if he haue, turne downe his eare, and launce the soze at the roote of the eare, and take out the matter: but take good hâde you cut not the veine that lieth a little aboue. If a Horse haue bene set vp hot after his iourney, and in his heate hath bene watred, or taken colde, which the Germanes call Verfaugen,

The third Booke,

in English Foundred, or in some places Fraide: the remedie is the skin of a Melzell cut in small peeces, fresh butter, a rotten egge and vinegar mingled together, and polvred into the horse with a horne: after which, let him stand covered with a wet cloth till he waxe hot. A present, and assured cure for this disease, I learned not long agoe, of that honest, wise, and valiant Gentleman, Captaine Nicholas Malbee, in whom there wanteth nothing belonging to a worthy Souldier: his medicine was this, Carter each legge immediately one handfull about the knee with a list, good and hard, and then walke him to chase him, and put him in a heat, and being somewhat warmed, let him bloud in both the best vaines, & and in the vaines of the hinder legges, betwene the hooft and the pastorne, reseruing the bloud to make a charge withall, in this manner: Take of that bloud two quartes, and of wheate meale, as it cometh from the Mill, halfe a pecke, and sixe egges, shels and all, of Bolearmoniacke halfe a pound, of Sanguis Draconis halfe a quarterne, and a quart of strong vinegar: mingle them all together, and charge all his shoulders, best, backe, loynes, and forelegs therewith, and walke him vpon some hard ground: three houres after, lead him into the stable, and let him stand tyed two houres to the racke, without meat or drinke, and walke him then two or three houres more, and then giue him a little warme water, with ground Malt in it, and after a little hay and prouender, then walke him againe vpon the hardest ground you can get: you shall ride him the next day a mile or two softly, & so from day to day vntill he be well, which will be within three or foure daies. Remember to let him stand the first day after his first walking, two houres in water by to the belly: this medicine is infallible. The collicke, or paine in the belly is thought will be eased in a horse or Mule, onely with the sight of a Ducke, or any water fowle. To keepe your horse from flies, it is good to wash him ouer with the iuyce of the leaues of the Gourd, in the midst of Summer. Many times horses are troubled with woormes, or bots, which you shall perceiue, if they cast their looke vpon their belly, if they wallow oftentimes, and strike their belly with their foote: the remedie is Harts-horne, Sauiue beaten, and giuen him with a little Vinegar in a horne. Columella would haue you take the horse with your hand, and after that you haue plucked

out the dung, to wash his fundament with Sea water, or Wine. Brasanolus in his Commentary vpon Hippocrates, declareth how he cured the Duke of Ferars horses, being in great danger with wormes, by giuing them Quicksiluer, and Scordium, or Water-Germander, when no other medicines would helpe. The Helme, or distillation, maketh a Horse slothfull, dull, and faint, yet will he be led, and ridden, and moderate labour is not amisse for him, let him drinke warme water with Wheat bran: the more filth he voydes at the mouth, the better will it bee for him. There are sundry diseases thought vncurable, which if the Horse had, and was sold, by the olde Lawes he was to be turned backe againe, except the bargaine were otherwise: of which number, are the broken winded, the lunaticke, and the mangines, called the Farcine, which disease if it come once to the bones, is thought vncurable. To this they adde the through Splent: some thinke the broken winded is not to be cured, because it is like to the consumption of the lungs in a man, yet some hope of recovery there is, if it be taken in time: for letting of blood in dry diseases, is against reason. But you may annoynt the whole body with Wine and Oyle, mingled together and warmed, and curry him against the hayze till he sweat, and giue him this drinke inward from the first day: the iuyce of Hysan, Swines grease clarified, and Amylum, in new sweet wine, which being boyled together, you may giue it him with a horne to open his pipes, and set him so as hee stand warme. The lunaticke eyes are cured by letting him blood in the temple veines, bathing the eyes on the outside with some warme bathe, and putting into them some strong water certaine dayes, till they be whole: For the manginesse, take the wormes called Cancharides, bsating them, and mixgle with them a little Werdes grease, and so annoynt him with it, warming the body of the Horse with a fire panne. Others vse to wash him with warme water twice a day, and after to rubbe him with Salt sodden in water, till the matter come out: Aboue all other, they say it excelleth in the beginning to annoynt him with the fat of a Seale: if it haue runne long, you must vse stronger medicines, as Lime, Wintstone, Tarre, old Swines grease, of each alike quantitie, boyled together, and with a little Oyle made in an oymnt.

The third Booke,

they vse to rub it also with the Swete of a Caldron. Against many diseases both of Horses, and Bullocks, they vse the roote of the Hearbe called Black Elleboze, of some Bearesfoote, or others Setterwort, which they thrust in the breast of a beast, betwixt the flesh and the skin, making a hole before with a Bodkin. Against all diseases of Horses, Vegetius commendeth this Medicine as the chiefest. Centoyle, Wormelwood, Dogge Fenell, Wilde Time, Sagapen, Betonie, Saxifrage, Aristolochia rotunda, take of each a like, beate them small, and sift them, and if the Horse haue an ache, giue it him with water, if he be ferme, with good strong Wine. The old Husbands would not suffer their Horses to be let blood, but vpon great necessitie, least being vsed to it, if it should at any time be omitted, it should breede some disease: and therefore in very young Horses, and such as be healthy, it is best not to let them blood, but in the roote of the mouth: for those that be come to their full age, you may let them blood before you put them to pasture, but beware you beare a fceddy hand, and strike them not too deepe. Geldings you shall not need to let blood. The Horses of Barbary (as they say) neuer haue any medicine.

E V P H O R. You haue spoken enough of Horses, it is time you say something of Asses.

H I P. It is greatly out of order, but since you will needs haue me so to doe, I will not sticke with you to say what I can therein, that each of you may doe the like in his charge. Asses are commonly kept, yet not to be little set by, because of their sundry commodities, and the hardnesse of their sading: for this poore beast contents himselfe with what meat so euer you giue him, Chiffles, Byers, Stalkes, Chaffe, (whereof euery Countrey hath store) is good meat with him: besides he may best abide the ill looking too of a negligent keeper, and able to sustaine blowes, labour, hunger and thirst, being seldome or neuer sicke: and therefore of all other Cattell longest endureth: for being a beast nothing chargeable, he serueth for a number of necessarte vses: in carrying of burdens, he is comparabls to the Horse, he draweth the Cart (so the load be not vnrasonable) for grinding in the Mill he passeth all others: therefore in the Country the Ass is most needfull for carrying of things to the Market, and Cozne to the Mill. In Egypt and Barbary (where the ground is very light) they haue also

also their vse in plowing : and the fine Ladies of the Countrey doe ride vpon Asses richly furnished : yea, they be very apt to be taught, so as at this day in Alcayre, you shall haue them daunce very mannerly, and keepe measure with their Musitian. Varro maketh mention of two sorts: one wilde, whereof in Phrygia and Lycaonia there are great store : the wilde Asses that are tamed, are passing good, specially for breede, & they are easilie broken : the other is tame, of which I meane to speake. The best are brought out of Arcadia, (although Varro seemes to commend the breede of Italy for goodnesse.) He that will haue a breede of Asses, must haue the Male and Female both of reasonable age, large bodied, sound, and of a good kinde : the Male must be at the least thre yeres olde : for from thre, til they be tenne, they be fit for breeding : they bring forth their Colts sometimes at two yeres and a halfe, but thre yeres is the best age : the Female goeth as long with her burden as the Mare, and dischargeth in all respects as she doth : but she will not very well retaine, except she be forced immediately after the horsing to run about : she seldome bringeth forth two. When she foaleth, she gets her into some darke place, and keepe her selfe from being seene. They will beare all their life time, which (as Aristotle saith) is thirtie yeres : they are put to the horse a little before the tenth of June, and beare euery other yere : they bring forth their Foale at the twelue moneth. While they be with Foale, they must not be greatly laboured, for hazarding their Foale: the Male must neuer be idle, for he is as lecherous as the Diuell, and by rest will ware naught. The Colt is suffered to run with the Dam the first yere, and the next is gently tyed by with her, onely in the night times: the third yere they are broken, according to their vse. The Dam doth wonderfully loue her young, so much, as she will not sticke to come thorow the fire to it : but she water she dare in no wise come nere, no, not touch it with her snout, neither will she drinke in any strange water, but where she is used to be watred, and so as she may goe and stand dry snote. They delight to be lodged in widenesses, and are troubled with feares full dreames in their sleepes, whereat they so pawse with their legges, that if they lye nere any hard thing, they hurt their snote: in drinking, they scarcely touch the water with their lippes;

The third Booke,

(as it is thought) for feare of wetting their godly eares, whose shadowes they see in their drinking: no beast can worse away with cold then this. If your Asses halt at any time, you shall thus remedie them, wash all the foote with warme water, and afterward make them cleane with a sharpe knife, which when you haue done, take old chamber lye, as hot as may be, and melt therein Goates suet: or if you haue not that, Dre tallow, and anoint all the feet till they be whole.

E V P H O R. They say, that betwixt an Ass, and a Mare, is gotten the Poile, as a third kinde, of two sundry kindes, neither resembling the father, nor the mother.

Moiles.

H I P P O. It is very true: as of the she Ass, and the Horse is engendred the she Poile, but altogether, stubborne, and unreasonable dull. Also of the Mare, and the wilde Ass, being broken are bred Poiles that run passing swiftly, and are wonderfull hard hoofed, but rugged of their body, and mischieuous stomached, yet easie to be handled: the Mares for bred, must not be vnder foure yeeres: nor above ten: they are foaled in the twelfth moneth, as Horses and Asses are, as Aristotle saith: but Columella sayth, their foaling time is not before the thirtenth moneth. The Female conceaueth (as experience teacheth) assuredly after the seauenth day: the Male doth neuer better horse, then when he is most tyred. She that conceaueth not before shee hath cast her colts teeth, is taken to be barren, as she likewise that takes not at the first horsing. Those that are gotten betwixt a Horse and an Ass in olde time, were called Peryards, and such as were brought forth betwixt an Ass and a Mare, they called Moiles. The Moiles themselues (they say) doe neuer ingender: and if at any time they did, it was taken for monstrous, accounting the cause of their barrenness, the contrarietie of their kindes: which matter a long time troubled both Aristotle, and the rest of the Philosophers. Though Aristotle hath other where written, that Moiles doe both ingender, and bring forth: and with him agreeth Theophrastus, affirming, that in Capadocia they doe continually bring forth, and ingender of themselues. The like doth Varro, and before him Dionisyus, and Mago affirme, that the breeding of Moiles in the countries of Affricke, is neither monstrous, nor reason, but as common as our breede of Horses: but the Poile is

is both fayzer, and better stomached, that is begotten of an Ass and a Mare. The Stallion that you meane to haue for your race of Horses, must be as fayze as you can get, hauing onely this regard, that he be large of body, bigge necked, broad, and strong ribbed, large, and brawne breasted, his thighes full of synowes; and the legges well knit, of colour blacke and spotted: for Asses (though they be commonly dunne) yet that colour agreeth not well with a Horse: some say, that what colour you would haue your Horse to be, with that coloured cloake you must couer your Ass. The Ass so proportioned (as I haue declared) that you meane to appoint for your Stallion, you must straight wayes take from his damme, and put him to some Mare that hath a Colt suckling of her: you shall easily deceiue the Mare, by setting her in a darke place, remouing her owne Colt from her, and putting to her in stead thereof the Asses Colt, which she will nurse as her owne. Afterwards, when the Mare hath bene vsed to it a tenne dayes, shee will continually after that time giue it sucke. The Ass being in this order brought vp, will better acquaint himselfe with the Mare: sometimes though he be suckd onely with his owne damme, being brought vp when he is young amongst Mares, will well enough keepe company with them (as Columella saith:) but our Asses are of themselves desirous enough of the Mares, that they neede not to be trained to the matter: for it is a wonderfull coltish beast, & vnreasonably weaponed. He must not be lesse then thre yeres old when he couereth your Mares, which must be in the Spring time, when you may well feede him with grasse, and good store of Dates, and Barly: neither must you put him to a young Mare, for if she haue not bene horsed before, she will so beat her woer, that she will make him like the woer as long as he liueth: for remedy whereof, you must at the first put to the Mare a wilder Ass, that may woer her before, but not suffered to horse her, and when you perceiue that she is horsing, alway with the ras hall, and put to your Stallion. A place fit for this purpose, the Countrey people (as Columella saith) were wont to haue, which they called a Frame, or a Brake, with two railles on both sides, and a little distance betwene, that the Mare cannot strue, nor turne from the Horse, the lower part enclosed, and the Mare standing low, so the Ass may the better leape her; hauing the

upper ground for his helpe, which when she hath conceived, and at the twelue moneths end brought forth, the pære after she must be suffered to run emptie, that she may the better bring vp her colt. The she Hoile (being a twelue moneth old) must be taken from the Damme, and let run vpon Mountaines, or wilde places, for the hardening of his hooves, and the better enduring of labour, for the male is the better for burden, and the female the quicker and liuelier: both the kindes doe trauell well, and till the ground, if the plowman be not vnreasonable, or the ground so stiffe, as it requireth a draught of Oren, or Horse. They will leaue striking and kicking, if you vse to giue them Wine, (as Plinie reporteth,) who likewise writeth, that a Hoile will liue foure score yeres.

E V P H O R. Since you haue begun with traouelling beasts, what can you say of the Camell?

small
H I P P O. The Camell is chiefly vsed in the East parts, which some suppose to be the seruiceablest cattell for man that is, and as it were thereunto onely feamed, for he is bumbast vpon the backe for bearing of burdens. Also, he hath foure knees, whereas the Horse, the Ass, and such others, haue but two: for his hinder legges bow forward as a mans knee doth, wherewith hee kneeleth to receiue his burden. There are two kindes of them, the Bactrian, and the Arabian: the Bactrian haue two bunches vpon their backs, and the Arabian but one, and the other on their breast to leane vpon, both sortes of them lacke their teeth about, as the bullocke doth: they all serue in those Countreies for burden, and to carry men in the warres: they are as swift as horses, but some a great deale more then others: neither will they breake their pace, nor carry more burdens then they are vsed to: they beare a naturall hatred to the horse: and can forbear drinke for foure daies: hee drinkes when he may, both for that is past, and to come, troubling the water before with his foot, otherwise hee delighteth not in it: hee is fedde beside his Pasture, and such things as hee gets in the Wood, with Dates or Barly, and Salt: he engendzeth backward as the Elephants, Tygars, Lyons, Connies, and such other, whose instruments grow backward: when they meane to goe to rut, they seek the secrettest and deserttest places that may be: neither may a man at any time
come

come nere them, without great danger. They goe with young a twelue moneth, and are meete for bréde at thyré yéeres old, and after a yéere they conceaue againe, they beare but one at once, as Elephants, and other great beastes doe: they giue milke till they be great. Againe, (as Aristotle sayth) Dydimus in his booke of Husbandry writeth, that the Camell hath a regard to his blood, as the Horse hath, and lieth neither with mother, nor sister. And the female Camell of Bactria, féeding vpon the Mountaines amongst the wilde Boares, is oftentimes breamed of the Boare, and conceaureth. Of the Boare and the she Camell, is engendred the Camell with two lumpes vpon the backe, as the Poile is of the Assé, and the Mare; and in diuers things resembleth his sire, as in bristled heares, strength, and not fainting in the myze but going lustily through, and in carrying double so much as other Camells, as the same authour sayth. The females of them are spaié, to serue the better for the warres: they liue (as Aristotle sayth) fiftie yéeres: others say a hundred yéeres, and are subiect to madnesse, (as Plinie sayth) there are a kinde of them called Camelleopards, that haue the resemblance of two diuers beastes, the hofes and hinder legges like an Dre, his forelegs and his head like the Camell, the necke like a Horse, being flecked white and red. Strabo sayth, he is couered like a fallow Deare, straight necked, and his like an Ostridge, his head some thing higher then a Camells:

EUPHOR. I remember I haue séene the like beast for all the world in a piéce of Tapestry with blacke Horses, with their Mines, and baggage vpon their backes, saue that they had their little hornes vpon their heads, like as some Sheepe haue. I thinke Heliodorus in his Echiopian storie, did first describe this beast, but these outlandish beastes we meddle not much with.

HIPPO. Goe to Euphorbus, let vs now sée you discharge your part, according to your promise, and tell vs some part of your cunning in kéeping your Cattell: for next to the Horse in worthinesse commeth the Dre.

EUPHOR. Since it is so appointed, I am contented to Bullockes. shew you what I can say touching my poyre skill: and first, I may not suffer the Horse to challenge the chiefe place, when the olde
waters.

The third Booke,

Waters and auncient people did alwaies giue the garland and chiefe praise to the Oxe, as to a good Plowman, and a faithfull seruant : for Heliodus, a most auncient Writer, and the grauest Authour of our profession affirmeth, that the family doth consist of the Husband, the Wife, and the Oxe. The selfe same by his authoritie doth Aristotle seeme to alleadge in his Politickes, and in his Economickes, which beast was alwaies of that honour and estimation, that he was condemned in a great penalty, who soeuer did kill him, being a fellow, and a chiefe helper in our husbandry. By the worthinesse of this beast, many great things received their names of them : for of the number, beauty, and fertilitye of Haifers, did Italy (as they say) first take his name, because Hercules pursued the noble Bull, called Italus. This is the chiefe companion of man in his labours, and the trusty seruant of the Goddesse Ceres : in many great things, for the roialty of the Oxe, they deriued their names from the Oxe, as in calling also the Grape Bumammam : in fine, Iupiter himselfe thought good to conuert into this shape his sweet darling Europa. Moreover, of a rotten Store are ingendred the sweete Bees, the mothers of Honey, wherefore they were called of the Greeks (as Varro saith) Βυλώνες. The same Varro makes foure degrees in their age: the first of Calues, the second of Pearinges, the third Stores, the fourth Oxen. The Seres : in the first, the Bullcalf, and the Colwe-calf : the second, the Heyfar, and the Store : in the third and fourth, the Bull, and the Colwe : the barraine Colwe he calleth Tauram, the melch Colwe Hordum, from whence came the feasts called Hordica festa, because the melchaine were then sacrificed. The godnesse of this beast is diuers, according to the diuersitie of the Country : the best were counted in the olde time to be of the bræde of Albania, Campania, and Toscan : at this day we take the best kinde to be in Hungary, Burgundy, Frisland, Denmarke, and in England. Of Bullocks, some are for the draught, some for the staule, and some for the paille : to what purpose soeuer they serue, whether it be for labour, for milking, or for sowing, it is best alwaies to choose such as are young, of lustie age, rather then those that are olde and barraine, the words of couenant in the olde time (as Varro saith) in selling of Bullocks, were these : doe you warrant these Bullocks, or Stores, that

that you sell to be sound, of a sound Heard, and without fault : The Butchers that buy for slaughter, and such as buy for sacrifices, vse no word of warrantise : and though some Bullocks are chosen by their strength, some by the greatnesse of their body, yet the best commonly haue these properties : large, well knit, and sound limbs, a long, a large, and a deepe sided body, blacke horned, though in the colour there be no great matter, yet some mislike the white for their tendernesse, which also Varro consenteth, who would haue them broad foreheaded, great eyed and blacke, his eares rough and hairy, his iawes to be large and wide, his lippes blackish, his necke well braunced and thicke, his dewlappe large, hanging downe from his necke to his knees, his shoulders broad, his hide not hard or stubborne in feeling, his belly deepe, his legges well sette, full of sinewes, and straight, rather short then long, the better to sustaine the waight of his body, his knees straight and great, his scete one farre from the other, not broad, nor turning in, but easily spreading, the hayze of all his body thicke and short, his tayle long, and big hayzed. Palladius thinketh the best time for buying of draught Oxen, to be in March, when being bare, they cannot easily hide their faults, by the fraude of the Seller, nor by reason of their weaknesse be too stubborne to be handled. It is best to buy them of your neighbour, lest the change of ayre and soyle hurt them : for the Bullocke that is brought vp nere home, is better then the stranger, because he is neither troubled with change of ayre, water, nor pasture : if you cannot haue them nere you, buy them from some like Countrey, or rather from a harder : and be well assured that you buy them euer matched, lest in their labour the stronger spoyle the weaker. Loke besides that they be gentle, skilfull in their labour, fearefull of the goade, and the driuer, not dreading any water or brydge : great feeders, but softly, and not ouer-hastilie, for such doe best digest their meate. In chosing of Bulles or Kine, the very like signes are to be required, that the Bull differeth from the Ox, in that he hath a moze frowning and fierce looke, shorter hornes greater, and thicker necke, so big, as it seemes the greatest part of his body, his belly something gaunter, and moxer for Bulling of Kine. The Bull, before he be suffered to goe with the Kine, must be well fed with grasse,

chaffe, or hay, and kept severally by himselfe, neither must he goe to the Colwe, till the tenth of June. Varro would not suffer him befoze the rising of the Lira: but Aristotle would haue him all the redding time, to goe in pasture with the Kine. The Colwe likewise would be high of stature, and long bodied, hauing great vdders, broade fore head, faire hornes, and smooth, and all other tokens almost that is required in the Bull, specially to be young: for when they passe twelue yeres old, they are not good for bread, but they liue many times farre longer if their pasture be good, and they kept from diseases. The olde Colwe giueth moze milke then the young, according to the Country peoples prouerbe, olde Kine moze milke, young Hennes moze eggcs. Againe, vnder thre yeres old, you may not suffer them to goe to Bull: if they chauce to be with Calfe befoze, you must put the Calfe from them, and milke them for thre daies after, least their vdders be soze, afterwards forbeare milking. Plinie writeth, that at a yere old they be fruitfull, but the bzeede will be little, as it happeneth in all too timely ingendzings. You must euery yere in these beasts (as in all other) sort your Stocke, that the old that be barraine, or vnmate for bzeeding, may be put away, sold, or remoued to the Plow: for when they be barraine (as Columella saith) they will labour as well as Oxen, by reason they are dyed vp, but we vse commonly to fat them: their age is knowne by the knots and circles of their hornes, which Plinie marketh likewise in Goates. The time for going to Bull, some take to be best in the midst of the spring: Palladius would haue it in July, for so in the ninth moneth she shall calue, for so long she goeth with Calfe (as the common people say) a Colwe and a Ducane hath both one time. In many places they desire to haue their Colwes goe to Bull a thirty or forty daies after the tenth of June, that they may calue in March, or April: that they should haue much milke, so order the matter, as their Kine goe to Bull from the Spring, to Winter, whereby they alwaies milke some: at once bulling the conceiueth, if the chauce to falle, she goeth to Bull againe within twenty dayes after: some say, if so be the Bull come downe on the left side of the Colwe, it will be a Cow-calfe, if on the right side, a Bull-calfe. The Greekes affirme, that if you will haue a Bull-calfe, you must knit the right Bone of the Bull, & for a Cow-calfe,

calfe, the left : Varro saith, that if you put the Cow to the Bull immediately after gelding, she conceiveth. Columella affirmeth fiftene kine to be enough for one Bull. I thinke he will well enough serue twenty kine, if he be such a Bull as I described : if you haue good store of pasture, you may let them goe to Bull euery yere, but you must beware your kine be not too fat, that will hinder their being with Calfe. The Cowe should when she is redding, haue but short pasture, and the Bull his belly full : so shall neither she be too fat, nor he vnlusty. If the Cowe will not take the Bull, you must stampe sea Onions in water, and rub her vnder the taile with it : if the Bull be not lusty enough about his businesse, take the pexell of a Stagge, burne it, and make it in powder, and with a little wine and the powder, bath his stones, and his pexell withall, which will serue for the like purpose in all other beastes (as Quincilian saith) his courage is also stirred vp by the like odours that you speake of for your Horse. A Bull ought not to leape the Cowe aboue twice in a day as some thinke, but we finde by experience, that he may oftner. In some places they haue common Bulles, and common Boares to euery Towne : A Bull will ware furious at the sight of any red thing, as the Elephant, and the Lyon, which can in no wise abide the sight of any white thing. A Cowe will giue sucke to a strange Calfe, but let not the Calues lye with them in the night, for feare of ouerlaying them. Some weane them at the first, and suckleth them with Milke, or Whay, hauing a little Branne in it, or Flowre, wherewith they bring them vp, till they be able to feede. Whether you meane to reare them for breede, labour, or feeding, you must let them want no store of good pasture : for though they be of neuer so great a breede, yet if their pasture be scantie, they will neuer come to their full growth : for pasture makes the beast (as the Countrey people say.) Mago, and the olde Husbandes, would haue you to gelde them whils they be very young, which order we likewise obserue in cutting of them : and in the Spring, or at the fall of the lease, when they be three moneths olde, or there about, we vse to gelde the Bull Calues, and spay the Cowe Calues, soluing vp the wound, and annointing it with fresh Butter. Columella would not haue them cutte, but their

Bones broken by little and little with an instrument, which kinde
 of gelding he best liketh, because in the little young ones, it is
 done without blæding: for when they be something growne by,
 it is better to cutte them at two yære olde, then at a yære olde,
 which must be done in the Spring, or at the fall of the lease, the
 Horse being in the wane: you must tye by the Calfe to a frame,
 and befoze you cut him, you must fasten about the sinewes, where
 by the stoncs hang, a couple of small sticks like a paire of tongs,
 and taking hold therewith, cut away the stoncs, so as a little of the
 vpper parts of them may remaine with the foresaid synowes: for
 by this meanes you shall not hazard the beast by ouer much blæ
 ding, neither is his stomacke quite taken away, but hath some
 thing of the father remaining, and yet loseth his abilitie of ingen
 ding. Notwithstanding, if you suffer him immediately vpon his
 new cutting to goe to the Colw, it is certaine he may get a Calfe,
 but let him not so doe, for feare of blæding to death. The wound
 must be annointed with the Ashes of Vines, and Lytharge, and
 he must not be suffered the first day to drinke, but nourished with
 a little meate: thre dayes after he must be dyetes, according to
 his feblenesse, with greene bolwes and swæte grasse cut for him,
 and looked to, that he drinke not too much: and if you will, you
 may annoynt the soze for thre daies with Tarre, and a little
 Ashes, and Oyle, to heale him the soner, and to keepe the place
 from flies. You must vse them while they be yet young to sus
 fer to be handled, and stroked, and tyed by to the Ganger, that
 when they all come to be broken, they may be handled with
 moze ease, and lesse danger: but Columella forbids you to med
 dle with the breaking, or labouring of them, befoze thre yære
 old, and after five: for the one is too soone, and the other too late.
 Those that you haue taken by wilde, and be well framed, and pro
 portioned, according to my patterne, you shall handle and breake
 in this sort: First of all, see that you haue a large roome, where
 the breaker may easily goe by and dolone, and out at his plea
 sure, without any danger. Befoze the Stable you must haue a
 faire field, that the Stæres may haue libertie enough, and not
 be feard, or haltred with trees or bushes. In the Stable, you
 must haue certaine stalles or bordes, yoke-wise set by, a seauen
 foote from the ground, to which the Stæres may be tyed: this
 done,

done, chouse you a fayre day for the purpose, and taking them vp bying them into the stable : and if they be vnreasonable, wilde, and curst; let them stand tyed a day and a night without any meate, to tame them withall: afterwards let him that keepes them, offer them a little meat, not sidewayes, or behinde, but before, coing them all the while, and speaking gently to them, stroking their backs, and their noesels, and sprinkling them with a little sweet wine, taking good heed, that they strike him neither with head, nor with héele: for if he once get that trick, he will neuer leaue it. Thus being a little acquainted with him, you shall rubbe his mouth with Salt, and let downe into his throat certaine lumps of salt fallow, and powring after a quart of good Wine, which will make him in thre dayes as good a fellow as you would wish him to be. Some vse to poake them together, and let them draw some light thing, or plow in a light plowed ground, that their labour hurt not their neckes.

The readier way of breaking them, is to yoke them with an olde Dre, that may easily instruct them: if he happen to lye downe in the furrow doe neither beat him, nor feare him, but binde his feet together, and let him lye, that hee may neither sturre, nor feede: which being well punished with hunger, and thirst, will teach him to leaue that sullen trick. The feeding of this kind of Cattell is diuers, according to the diuersitie of Countries: if there be store of good Pasture in the Countrey, there is no feede to that: in Countries where wanteth Pasture, and specially in Winter, he must be kept in the Stall, and fed with such fodder as the Countrey yields. Where there are Stables to be had, it is the best feeding for them: and Hay is very good, Chaffe, and Colestalkes with Chaffe and Hay, and chopt straw sodde together in water, is very good feeding for Winter. In some places, they feede altogether with new threshed strawe: in many places they giue them Lupines steeped in water, or Chiches, or Beson, mingled with Chaffe: besides, the branches and leaues of Vines, the greene branches of Elme, Albe, Poplar, and Holme: in winter, when other greene bowes faile, the Figge Tree will serue, or the brousing of Okes, & Holly. Oren are sone fat in good Pasture, and with Wheat, Rapes, Apples, and Radish: Oren, or kine, will be passing fat, where there wanteth Pasture,

The third Booke,

by giuing them meale mixt with Wheat, Chaffe, and Rapes, or
Oyaines. They will waxe the sooner fat, in washing them with
warme water, or (as Plinie saith) by cutting their skinnes, and
blowing in winde to their bellies with a Kæde. Sorion teacheth
that they will be fat, if when they are taken from pasture, you
giue them the first day Colwortz chopt and steeped in sharpe
Vinegar, and afterwards Chaffe, being well cleansed and ming-
led with Wheat branne, for the space of five or sixe dates, feeding
them after with good stoz of fodder: in Winter you must fæde
them at the first Cock-crowing, and againe when the day be-
gins to breake: in Summer first at the breaking of the day, then
at none, and at night: in Summer you must water them thrise a
day, thre heures afoze none, and thre heures after: in Winter,
once a day with warme water, which is also thought to be good
for fruitfulnessse: and therefore the Lakes that are filled with
raine water, are good for them. This kinde of Cattell desireth
no cleane, or faire water, but soule and pudled: yet it were bet-
ter to giue them faire water. Also, you must prouide them of
warne pastures for the Winter, and in Summer very cole:
chiefly Mountaines where they may browle vpon the bushes, and
picke vp a good liuing among the Woods: but in lowe grounds
and nere the Riuer Dren are sooner fatted, and kine giue a grea-
ter quantity of Milke. In Summer, they lye abroad all the
nights in many places: yea, in England you shall haue them
foddered abroad all the Winter. Though they be able to abide
colde, yet must you prouide them of large Stalles, for the succou-
ring of such as be great with Calfe. Your Stables or Drestals,
must stand dry, and be well flozed, either with stone, grauell, or
sand: the stone will suffer no water to abide vpon it, the other
will soone drinke it vp, and dry it: both sorts must be layed slope,
that the water may runne away for rotting the groundfels, and
marring their houses. Let them open toward the South, so
shall they be the drier, and the warmer: notwithstanding, let
your windowes open North and East, which being shut in Win-
ter, and open in Summer: may giue a healthfull ayze. In fine,
as naxe as can be let the houses be neither too hot, nor too colde,
and as dry as may be: Columella would haue two Dre-houses,
one for the Winter, the other for the Summer, both vacquered,
but

but well and high walled, for keeping out of wilde beasts. The Stals would be eight foote wide, that they may haue room enough to lye in, that the Kine great with Calfe hurt not one the other, nor the stronger Dre wrong the weaker: and that there may be room for their Keepers to come about them, and for yoking them. Vitruuius would haue the Dre-house open towards the East, and to be nere the fire: for fire is naturally beneficiall to Cattell, both for the drying vp of the infectiue damp, and the keeping of the Cattell warme. Besides, by seeing of the fire, they are made gentler, and by the heate thereof, what colde they haue taken in the Pastures is expelled, and diuers inward diseases cured. The houses must be secured with diuers rooms, enclosed and racked, the Kacke must haue such partition, as one beast beguile not the other, whereto they must be well haltred and tyed, for hurting one the other: Cato would haue the partitions lettised. Moreover, it is to no purpose to feede them well, except you also looke to the keeping of them in health, and sound, and therefore whether they be in house, or abroad, you must alwasies haue a speciall regard vnto them, and to ouer-look them in the night, specially, if there be any Kine amongst them with Calfe. And though it be needefull at all times to ouer-see them, both morning and euening, yet most needefull is it of all other times, to see to them in the Spring, when you first put them to pasture: for at that time, by reason of their change of diet, both Dren, Kine, and Hayfars, are most in danger of sicknesse: in Winter againe to looke to them, that they be not, for sparing of charges, kept so poore, as they be vtterly spoiled. And therefore you must spare no litter, specially when they come from labour, to rubbe them, and dry them, stroking them with your hands, and raising the hide from the flesh, which will doe them great good. In conuining from worke, or out of the pasture, you must wash their feet well with water, before you bring them into the house, that the dirt and filth cleauing to them, breede no diseases, nor soften their hofes. Beware of too much cold, or heate, for too much of either, filleth them with diseases. You must take heed they be not chaff, nor chased by and downe, specially in hot weather, for that bringeth them in a Feauer, or causeth them to haue a Flue.

The third Booke,

Take hãde also that there come neither Swine nor Poultrie nere their stalles, for both of them with their dunging poysoneth the beast. The dunging of a sicke Swine doth breede the Pestilence, or Murraine amongst Cattell. You must away with all manner of Carrions, and burying them well for infecting your Cattell. If so be the Murraine chance to come amongst them, you must presently change the ayre, and seuer your Cattell farre asunder in diuers pastures, keeping the sound from the sicke, that they be not infected, nor suffering them either to feede together, or drinke together.

The Murraine and his diuers kindes.

The Pestilence or Murraine, is a common name: but there are diuers kindes of it: in some Murraines, the cattell driuell, and runne both at the nose and mouth: in others againe they be dzy, and fall away more and more: sometimes it comes in the loyns, and causeth them to halt befoze or behinde: sometime in their kidnes, and appeareth by the weaknes of their hinder parts, wherein they seeme to haue great paine in their loynes. Another kinde there is, that riseth like a Farcine, with pimples ouer all the body, now appearing, and presently vanishing, and comming out in a new place. Another sort, betwixt the hide and the flesh, wherein the humour sweateth out in diuers parts of the body. Sometime it is like a leprosie, when all the skinne is full of little pimples, and sometime a kinde of madnesse, wherein they nether heare, nor see so well as they were wont, though they loke fayze and fat, and lustie enough. Euery one of these kindes, are contagious and infectiue: and therefore as soone as you perceiue them infected, you must presently put them asunder, for infecting the whole stocke, lest you impute that to the wrath of God (as many soles doe) which happeneth through your owne beastlynesse, and negligence. The common remedy (as Columella saith) is the roots of Angellica, and Sea Thistle mingled with Fenell seede, and with new boyled Wine, Wheat flowze, and hot water to be sprinckled vpon them. The common people, when they perceiue either their Horses or Bullocke sick, or any other cattell else, they vse to take the roote of blacke Ellebor, called of some Consiligo, of others Bearefoote: and for a Bullocke, to thrust it in the Dewlap; for a Horse, in the breast; for Swine or Sheepe, through the eare, making a hole with a Bodkin, & thrusting the roote presently through.

Scatterwoort.

through, which the new wound holdeth fast that it can not fall out, whereunto all the whole force of the poyson doth straightwaies gather, and runneth out in filthy water. Perfumes in this case (as Vegetius teacheth) do much good, as Brimstone, vnblecked Lime, Garlick, wilde Mariorum, and Coziander seede, laid vpon the coales, and the Dren so held, as they may receiue the smoke by their mouth & nose, that it may fill the bzaine, and their whole body with a healthfull ayze. It is good also thus to perfume the whole body, both for the health of the sicke, and preserving of the whole. Before I proceed any farther, I will set you downe what kinde of Spices, and what quantitie you ought alwaies to haue in a readinesse for your cattel. You must haue one pound of Fenicrike, halfe a pound of Liquerelle, one pound of Czaines, Turmericke, halfe a pound, or a quarterne of Bay berries, one pound of Long Pepper, halfe a pound of Triacle of Bean, a pound of Anis seede, halfe a pound of Comin, halfe a pound of Madder, Myrtment, halfe a pound. The hearbe whose roote you may vse (as I said before) groweth in many places in the Woods: it was once brought vnto me by chaunce from Darndall in Sussex, by one Richard Androwes, a good painefull searcher out of such things. For beside his present remedying of Cattell, he serueth against diuers diseases in a man, specially for the Quartane, as the learned Mathematicus hath in his description of Plants mentioned.

For Cru-
ditic.

To returne to my Cattell: if they want their digestion, or chawe not cudde, which diseases is perceiued by often belching, and noyse in the belly, with forbearing of their meate, dulnesse of their eyes, and not licking of themselues. Take a handfull of Wellitozie of Spaine, as much of Hearbegrace, as much of Fetherfew, Sage, Hozehound, and Bay Salt, thre pintes of very strong new drinke: seethe them all together thre or foure waloppes, and giue it him bloud-warme in the morning, not suffering him to drinke till the afternoone: if you neglect this disease, so that he be payued in the belly, and full of grieffe, hee will grone, and neuer stand still in one place. For remedie whereof, you shall binde his tayle close by the Kump, as strait as may be, and giue him a quart of Wine, with a pinte of the purest Oyle: and after drue him apace for the space of a mile and a halfe; anoint your hand with grease, and rake him: afterwards,

The third Booke,

afterwards, make him runne againe : some vse to let him blood in the taile, within a handfull of the rumpe.

The Taile There is a disease which they call the Wolfe, others the Taile, which is perceiued by the loosenes, or softnesse betwixt the ioynts: take the Taile and scæle betwixt euery ioynt, and where the ioynt seemeth to be a sunder, or is soft and not close as the other ioynts, there take and slit him the longest way vnder the Taile, about two inches long, and lay in the wound Salt, Soote, and Garlick, and binde it fast with a clout about it. The Cholicke, or paine in the belly, is put away in the beholding of Gæse in the water, specially Duckes, (as you sayd befoze of Hozes :) for the sight of the Ducke, as Vegetius and Columella say, is a present remedy to this beast.

The Flixe For the Flixe, or the Lask, which in some places they call the Kay, take Sloes and dry them in powder, and giue it them to drinke: if it be the bloody Flixe, the olde fellows were wont to cure it in this sort: They suffered not the beast to drinke in thre dayes, and kept him fasting the first day, and gaue him the Stones of Keazins, or Grapes, dzyed and made in powder two pounds, with a quart of Charpe tart Wine, and suffered them to drinke no other drinke, and made them eate the browsing of wilde Oliue trees, and Adstrixe trees: and if they mended not with this, they burnt them in the forehead to the very bzaine pan, and cut off his eares. The wounds, till they were whole they washed with Dre pissle: but the cut parts were to bee healed with Dyle and Pitch.

Lask in Calues. If your Calues haue the Kay or Lask, take swæet milke, and put therein the Kennet of a Calfe, make it no thicker but as the Calfe may well drinke it, and giue it him luke-warme.

The Cough. If your Bullocke haue the Cough, and if it bee but beginning, giue him a pinte of Barley meale with the yolke of an Egge, Keazins boyled in swæet Wine and strained, a pinte: mingle them together, & giue it him fasting. Also Graines beaten and mingled with Flower, fried Beanes, and meale of Lentils, all stirred together, & giuen him in a mash. Columella would haue you giue them Grasse chopt, and mingled with Beanes that are but a little broken in the Mill; and Lentils small ground, and mingled with water. The old Cough they cured with two pound

of Hylope, steeped in three pintes of water, and mingled with Flower, which they made him to swallowe, and afterwards powred into him the water wherein Hylope had bene sodden, also Deason, with Barly water and sodden Hony, when they had the Cough, and Consumption of the Lungs. To keepe them a liue, they used to burne the roote of a Hasell, and to thrust it through their eares, giuing them to drinke a pint of the iuice of Acks, with the like measure of Oyle and Wine. For the Cough of the Lungs. A vse to giue them long-Pepper, Graines, Fencgryke, Bayes, Annistiede, Dytment-balles, Turmericke, and Wadder, beating them all together, and seething them in good Ale grounds. If your Calues haue the Cough, take Sentozy, and beat it to powder, and giue it them.

If they haue the Feauer, or Ague, you shall perceiue it by the watering of their eyes, the heauinesse of their head, the drying at the mouth, beating the veines, and heate of the whole body: let them fast one day, the next day let them blood a little betimes in the morning in the taile, after an houre giue them a thirty little stalkes of Colwortes sod in Oyle, Water, and Salt, which must be powred fasting in them, five dayes together. Beside, you may giue them the tops of Olive trees, Lentils, or any tender buttings, or branches of Vines, and wipe their mouthes with a Sponge, giuing them colde water thrise a day.

The blood falling downe into the legs, causeth them (as Vegetius saith) to halt, which as soone as you perceiue, you must straight waies looke vpon the hooves, the heate whereof will declare his griefe, beside, he will scarce suffer you to touch it. But if so be the blood be yet about the hoose in the legs, you shall dissolue it with good rubbing, or if not with that, with scarifying, or pouncing the skinne. If it be in the foote, open it a little with a knife betwene the two clawes, and lay to the soze, cloutes dipped in Vinegar and Salt, making him a Hoose of Broome, and be well ware he come not into any water, but stand dry. This blood, if it be not let out, will breed to matter, which will be long ere it heale: if it be opened at the first with a knife, and made cleane, and after clouts dipped in water, Salt, and Oyle laid to it, and at the last anointed with olde Swines-grease, and Goates suet boyled together, it will quickly be whole. This disease, as I take it,

The third Booke,

the countrey people call the Fowle, or the Wilspe, which they sometime cure with drawing a rope of straw, or hayre through the Clāse, till it blēde, or by scaring of it with a hot yron. If the blood be in the lower part of the Hoofe, the vttermoſt part of the Clā is pared to the quicke, and so the blood let out, and after the foot wrapped with clowtes, and covered with Bzome, you must open the Hoofe in the middelt, except the matter be ripe. If he halt by reason of the Crampe, or paine of the sinewes, you shall rubbe his knees, thighes, and legs, with Salt and Oyle, till he be whole. If his knees, or ioynts be swollen, they must be bathed with warme Vineger, and Linsēde, or Oyle beaten and layd to it, with Water and Honny. Also Spunges wet in hot water, and dryed againe, and annoynted with Honny, are very good to be layd to the knee: if vnder the swelling there be any humour, Leauen, or Barly meale sodde in water and Honny, or Sweet Wine, must be layd to it: and when it is ripe, it must be opened with a knife, and healed as befoze.

All griefes generally, if they be not broken, must be dissolved whileſt they are new, with bathes, and fomentations: and if they be old, they must be burned, and the burning annoynted with Butter, or Goates suet. If he haue hurt his hēle, or his hoſe, Stone Pitch, Brimstone, and greasie Woll, must be burnt vpon the soare with a hot yron. The like must bee done when it is hurt with a Stabbe, a Thorne, or a Nalle, being first plucked out, or if it bee very deepe, it must bee opened wide with a knife, and so handled: for kiled hēles, take and caſt him, and binde his legges fast together, then take your knife, and cut it out as nie as you can, and let him bleed well: then take a penny-worth of Verdgrease, and the yolke of an Egge, and temper them well together, and binde them close to the place, and he shall heale. If the Udder of your Kine doe swell, you shall bathe them with Zuy, sodden in stale Bēere, or Ale, and smoke them with Honny coames, and Camomell. If the Ballockes ſete be nere woꝛne, and surbated, wash them in Dre pisse warmed, and kindling a few twigges, or sprayes, when the flame is done, cause him to stand vpon the hot imbers, and annoynt his hornes with Tarre, and Oyle, or Hogges grease. They will neuer lightly halt, if after they haue bene laboured, their ſete be

be washed well with cold water, and afterwards their pasterms, and the places betwene the Clés be rubbed with olde Swines greafe.

The scabbes, or mangellesse, is gotten away with rubbing them with stamped Garlicke, which also cureth the biting of a madde Dogge: besides, Venereal, and Brimstone, beaten and boyled with Oyle, Vineger, and Water, and after whilest it is warme, a little Alom made in powder, and cast into it, doth cure the scabbe, being annointed in Sunshine. Others vse to annoint them with Butter, and Bullocks piss: and some againe take Rozen, Tarre, and Wine, and vse it as a Pultesse. Skcbbes.

Hide-bound, is when the skinne so stickes to his backe, that you cannot take it vp from the ribbes, which happeneth by suffring him to take cold after his sweat, or if after his labour he be wet with raine, or brought low with sickenelle: which, because it is very dangerous, you must loke that when they come from their labour, and are hot, you sprinckle them with Wine, and giue them some peeces of fat, or suet. But if they be already hide-bound, it is good you seethe some Bay leaues, and with the warme decoction thereof, to bathe his backe, and to rubbe him all ouer with Wine and Oyle mingled together, and to lift and plucke vp the skin round about, and that a broad while the sunne shineth. If his bleeding trench not after the cutting of the vaine, the remedy is, to lay his owne dung to the place. A common medicine for all diseases (as Vegetius reporteth) is this: the roote of a Sea Onion, the roote of a Poplar, and the common Salt, of each a sufficient quantitie, lay them in water, and giue it your Cattell to drinke till they be whole: which also being giuen in the beginning of the Spring, for the space of fouretene dayes, preserveth them from all sickenelle. Now that you haue heard in what sort the old husbands did remedie the diseases in their Cattell, I shall briefly declare vnto you the remedies that are obserued in sundry diseases at this day, whereof I haue chopt in some amongst the medicines before.

First, for the Murraine: it beginneth at the first in the throat, and swelleth in the head, and rotteyth with much noyse in the throat, whereby it is perceiued: take a quart of newe Milke, halfe a peny-worth of Butter, a peny-worth of Garlicke, two For the Murraine.
peny

peny-worzh of English Saffron, two peny-worzh of Cinamon,
two peny-worzh of Turmericke, a quantity of Hearbe grace, a
quantitie of Bittony, mingle them all together, and giue it him
warme: then take an aule, and thrust the toppe of his nose vp-
ward, take but the very toppe, to thrust through, and not to the
headward, then let him blow in the necke almost a pottell, if hee
be able: saue the blood, and let it stand, if it change, he may liue,
if not, he dieth. Another for the same. Where he swelleth about
the iawes, and vp to the eares, open him vnder the iawes to the
roote of the tongue, and get in your finger, and open it a good
wisencesse, then take a good peece of rusty Bacon, and a handfull
of Raggewort, stampe them well together, and fill the hole full
with it: then let him blow at the nose, and the tongue. A drinke
for the same. Take Sausie, Hearbe grace, Lungwort, Hyslope,
Time, of each a like quantitie, halfe an handfull, stampe them,
and take a quart of good Ale grounds, and seeth them a wallop, or
two: take and straine it, and put the licour into a vessell, put
thereunto a peny-worzh of Graines, a peny-worzh of long Pepp-
er, a peny-worzh of Oriment, and an peny-worzh of Fenegreke,
so giue it the beast like-warme.

For the
Lungs.

The sicknesse of the Lungs is perceiued, if the Dewlap be
hard closed together very farre vp: also in hard seeling the hide
vpon the backe, it cracketh, or snappeth much: also a short hus-
king, and thrusting out the tongue withall: if it be much perished
on the left side, he is incurable, which you shall perceiue by the
Hide, which will stick fast on that side, and likewise the Dewlap:
if he be farre gone, he will groane much. The remedy for this
disease, is to take long Pepper a peny-worzh, round Pepper as
much, of Graines two peny-worzh, of Turmericke two peny-
worzh, of Fenegreke two peny-worzh, of Hacc as much, Cloues
a peny-worzh, of Aniswoods a peny-worzh, of Hadder two peny-
worzh, of Triacle of Sean; the vtter rinde of Walnuts dryed,
and made in powder, Juniper berries powdered, Ore Lungwort,
Fetherfewe, Hearbe grace, Sausie, Hyslope Mintes, Bay berries
powdered, a peny worzh of Garlicke, a quart of Chamberlie, a
pinte of Salt, a quantitie of Butter. Setter him before, or im-
mediatly after this medicine giuen.

Setting
of Carrel.

The order of Setting a Bullocke is this: take Setterwort,
otherwise

otherwise called Bearesfoote, and Garlick, like quantitie, peele and stampe the Garlick, and pare the Setterwort cleane, and wrapps them well in Butter, then cut the Dewlap two inches behinde the sticking place, to the breastward, and cut it alongstwise about two or three inches, and pull the Dewlap with thy finger, or with a sticke, round about, one side from the other, as much as you can possible: Then put the Setterwort, Garlick, and Butter, as much as thou canst well put in, and thus doe on both sides the Dewlap, then rowle him so that the string may goe through both holes on both sides the Dewlap, alwayes remembering to cut the Dewlap a hand broad, or about the bottome, and in any wise to rent him to the bottome, before you put in the medicine. The third day after the setting, looke to the opening the wound, and let out the corruption (if it be come downe) if not, put in more of the medicine, and turne the rowle: and if it be much swollen, and hard, and will not rot, take a hot iron, and take vp part of the soare, the skinne, and the flesh, in such place as thou shalt most conuenient, so as it come not to the bone, and thrust the iron through on the one side, and on the other, or once right vnder, if the swelling be right beneath, and Tarre him well if the flies be busie. Which flies, if they chaunce to get into the soare, take a cloth, or towell, and lappe it about a sticke, and put it into skalding hot Tarre, and so among the Nagots, searching every corner well. After you haue pearced him with the hot iron, remember to take a little sticke, and Towe, and dipping it in Sallet Oyle, or will Oyle, to rubbe the hole where the prou passed.

The sickness of the Gall, is knowen by the running eyes, The Gall,
 or if he haue much yellow care-ware: it is also discerned by the or Yel-
 browne yellowes vnder the vpper lippe: the Cure is this: Take lowes.
 Chamberlie, good Ale-grounds, or Bere-grounds, hard Soote
 in powder, Gallwort, beasis Lungwort, Planten leaues,
 Hearbegrace, Hempseed, or Henpe toppes, Garlick stamped,
 a peny-worth of Aqua vira, for a great Bullocke, take almost a
 quart of this medicine, for a small Bullocke, lesse: when hee
 hath drunke, take Salt, Loame of the wall, and leaured bread,
 and rubbe well his tongue, and all the roffe of his mouth: then
 wash his backe, and chase it well with Chamberlie, luke warme:
 gather

The third Booke,

gather all these Herbes in Summer, and keepe them, and make them in powder. This Medicine serueth likewise for the Lungs.

For the Liuer. If a Bullocke be diseased in the Liuer, he complaineth first in the legges, which will so grieue him, that he shall not be well able to stand, though he be in good liking: the remedie is this: Take a quart of good Ale (if it may be gotten) if not, take Beere, put therein Liuerwort a good handfull, Wormewood as much, a peny-worth of Garlicke, halfe a peny-worth of Hadder, a peny-worth of round Pepper, as much long Pepper, a peny-worth of Cloues and Pace, a peny-worth of Triacle, mingle them together, the Herbs being powdered, and giue the Beast a drinke luke-warme. The signes of the Blaine are these, Swelling about the face and the eye, and somewhat in the body: if it be in the body, it swelleth much there: the onely remedie is: Take and search him in the mouth, if you perceiue blisters vnder the rootes of the tongue, or other place thereabouts, then cut them to the bottome, and let them out, and rubbe the place with Salt: search him also in the bodie at the fundament, by the arme or hand of some young stripling: and when his arme is in as farre as hee can, let him turne his arme vppward, and seele for the Blaines, or Blisters, and breake them with his nayles, pulling them quite out: see that he annoint his hand well with Oyle or Soap.

The Sprenges. There is a disease called the Sprenges, wherewith hee will smite his head backward to his belly, and stampe with his legges: you must put your hand into his fundament, as far as you can, & pull out the dung, then shall you finde blood, pull the blood quite out, and take a good handfull of Bay Salt, and put it in at twise, as far as you can: if he haue this disease, he will swell in the bodie, and conet much to dung. If he haue the Staggers, he will looke very red about the eyes, and cast his head backward: take the fourth part of an ounce of Pepper, bryse it, and take halfe a pinte of sharpe Vineger, warmed blood warme, and poyze it into his Nostrills, & hold his head well vppward, and let him bleed at the

The Dasie Nose. If your Bullocke turne round, and haue the Dasie, you shall take him by the head, and seele vpon his forehead, and you shall seele it with your thumbe: cut the skinne crossewise right in the place, and wipe away the blood as it doth increase with a clout, and binde a cloth ouer his head, and keepe it warme. If
your

your Dren Wisse bloud, k epe them foure and twenty houres from water, and then giue to euery one a little dishfull of rennet curds in a quart of milke, let them not dzinke in foure houres after. There sometime runneth a bloud vpon the backe of a Bullocke, which will make him draw his legges after him, and goe as if he were swaide in the Chine : cut off a ioynt or two of his tayle, and let him bl ede : if he bl ede too much, knit his tayle, or seare it. If he haue the Panties, he will pant much, and shake in the Flanke, and sometime shake downe : giue him a little rennet, with Sote and Chamberlye. If he swell of the Taint, or Stingwozine, giue him vrine, salt, and tryacle to dzinke. If he be Hidebound, stampe the leaues of Flozedelise, straine them, and giue the beast to dzinke : if he chaunce to haue a stroke in the eye, take the iurce of Smalledge, Fenell, and the white of an Egge. The Gargyse is a swelling beside the eye vpon the boane, like a botch, or a byle : if your Bullocks haue it, cut off round about it p eces of skinne as broade : then cut also round about those p eces one narrow lappe of the skinne, which will k epe the disease from his lippes, for if it come to his lippes, it is incurable : Then take Chamberlye and Salt, and seethe them together, and wash the places where the skinne is cut off, and wash it therewith euening and mozning, till the swelling be gone, scraping off the scabbes, and other filth at euery dresling to the quicke, till the swelling be gone, not sparing it so long as it watreth and runneth : when the swelling is cleane gone, take Paruoile and Honey, boyled together bloud Inarme, and annoynt all the said places, which will both heale it, and cause the hayze to come againe. We haue certaine medicines besides, that we vse generally for all diseases; as this, which is very soueraigne : Take a handfull of beastes Lungwozt, a handfull of other Lungwozt that seructh for the pot, a handfull of inward rinde of Elder, a handfull of Kewe, choppe them small, and put them into a pottle of good Ale, let them seethe till they be soft, then stirre them, and put in the liquour a peny-wozth of long pepper, a peny-wozth of graines, a peny-wozth of Liquerise, a peny-wozth of Amiswede, a halfe-peny-wozth of Comen, a peny-wozth of Turmericke, all well beaten, and put into the liquoz, with a quarter of a pound of Badder : and whilst all these do seeth, take a great bole dish, and put therein a handfull of

Pissing of
bloud.

Panties.

Taint.

Hide-
bound.

Gargyse.

For all
di. eates.

The third Booke,

Bay salt, halfe a handfull of Garlick, foure new layd Egges, shells and all, two balls of Oylment, grinde all these things with a Peasle, in the bowle: then take the liquor aforesaid from the fire, till it be halfe cold, and put the warme liquor into the bowle, with the Garlick, Salt, Egges, and Oylment, brew it well together, and giue the Beast to drinke bloud-warme, or a little moze. Another of the same sort is this: Two peny-worth of Comen, a peny-worth of Grains, two peny-worth of Anisseed, a peny-worth of Bay-berris, a peny-worth of Fenecik, a peny-worth of Turmericke, one ball of Oylment, a peny-worth of Triacle, or rather for the Lungs, thix or foure spoonefuls of Gadder, beat them all together, and put them in thix quarts of drinke, set them on the fire, till they be bloud-warme, giue the beast no drinke in the morning befoze, nor till none after, in the Summer, and in the Winter till night: or if you will, you may giue them this medicine following: Take Flint soote, that is hard dyed vpon a pease or roafe, and beat it into powder with salt, then take running water, and seethe it, rank Iuice, with the soote and salt, and when the Iuice is soft, take and wyng out the iuyce, and straine all together through a linnen cloth, and giue it your cattell to drinke bloud-warme, in the Spring, and at the fall of the lease. Bubale, called of the common people Buffes, of Plinie Bisonte, are common in Italy, beyond the Apenin: a wilde and sauage Beast, that for their fiercenesse, are handled with rings of Iron in their noses: of colour blacke, their bodics large and mighty, their legges well set, and knit very strong: and in respect of their bodie, short, their hoynes large, crained, and blacke, their hayze small and short, their tayles little: they are in those parts vled for carriage, draught, and like vses, as the Oxe. Of the milke of this beast are made Cheeses, that about Rome and other places are greatly esteemed. Columella counts them to be strong meate, and heavy of digestion. Doe here is all that for my share I haue to say touching my cattell: now Hedio, hold you the candle another while.

The
Buffes.

Sheepe.

HEDIO. Next vnto the greater sort of cattell, the chiefest place is to be assigned to Sheepe: yea, if you consider the great commodities and profit, they are to be preferred befoze them: for as Oxen serue for the tilling of ground, and necessarie vse of men, so is to this poore beast ascribed the sauegard of the body, for the

the Sheepe doth both with his flæce apparrell vs, and with his milke and wholesome flesh nourish vs (as the Poet witnesseth.)

Poore beast, that for defence of man, at first created wast,
 And in thy swelling vdder bear'st, the iuyce of daintie tast: (saile,
 That with thy fleece keepst off the cold, that should our limbs aſ-
 And rather with thy life, then with thy death, doest vs auaille.

Of Sheepe there are sundry breeds. The rich and a champion
 countrey breedeth a large and a great sheepe: the barren and the
 cliffie, a reasonable stature: the wilde and the mountaine ground,
 a small and a wærrish sheepe. The old husbands did greatly com-
 mend the breed of Milet, Appulia, and Calabria, and most of all,
 the breed of Taranto, next of Parma, and Modena. At this day, for
 the finenesse of their flæce, are most in price the sheepe of Eng-
 land, of Germany, about the Rhine, and of France. Varro coun-
 selleth all such as would buy Ewes, to haue their chiefe conside-
 ration of their age, that they be neither too old, nor too young: the
 one of them not yet come to it, the other already past profit: but
 better is that age, whercof there is some hope, then where there
 followeth nothing but a dead carkasse. Your best is therefore Thechoise
 of Ewes.
 to buy them at two yeres old, and not to meddle with such as
 are past threë: their age is to be knowne by their teëth: for the
 teëth of the olde ones are woyn away: next must you loke, that
 your Ewe haue a large bodie, deepe wolloed, and thicke ouer all
 the body, specially about the necke and the head, and good store
 vpon the belly: for such as were bare necked and bellped, the
 old husbands alwaies refused. The necke must be long, the bel-
 ly large, the legges short, though the sheepe of England be long
 legged, the tayle in some countrey short, in others very long:
 for in Arabia some haue tayles a cubite long, but wonderfull
 broad: others, (as both Herodotus, and Alianus affirme) threë
 cubits long, so that the Shepheards are forced to tye them vp,
 for being hurt with trayling vpon the ground. In Egypt a Rams
 taile hath bene found to weigh xx. pound and more. The Ram Rammes;
 must haue his hoznes great, winding inward, and bending to
 the face, though in some places they haue no hoznes at all, and
 yet no better Rammes: the hoznes must rather crooke inward.

then grow straight by. In some Countries that are wette and stormie, Goates & Rammes are to be chosen that have the greatest and largest hornes, whereby they may defend their heads from storme and tempest: and therefore in cold and stormie countries, the horned Rams are best: in milde and gentle clymates, the pold. Beside, there is this inconuenience, when he knows himselfe to be armed, he will alwaies be fighting, and vnruly among his Ewes, and though he be not able to serue the turne himselfe, yet will he suffer no other Rammie in the Flocke, till he be euen cloyed, and lamed with letchery. The Dollard on the other side, finding himselfe vnarmed, is milder and quieter by much: wherefore the Shepheards, to restraine the rage of the vnruly, doe vse to hang before his hornes a little bozd with sharpe picks inward, which keepe him from his madness, while he perceiueth himselfe to be hurt with his owne blood: others say, that if you pierce his hornes with a wimble, next to the eares, where they winde inward, he will leaue his bawling. In some places also the Ewes are horned: but to the Rammie. His eyes must be browne, his eares must be great, his backe, shoulders, and buttocks broad, his stoncs great, his tayle broad, and long: you must looke beside, that his tongue be not blacke, nor peckled, for commonly such will get blacke and pyed Lambes, as Virgill noteth:

And though the Rammie in sight be white as snow,
If blacke within his iawes his tongue be wrought,
Refuse him quite, lest if he leape thy Ewe,
He doe infect thy Fold with colour nought.

Buy not your Sheepe but washed and vnshorne, that the colour may plainely appear: the white colour, as it is the beautifullest so is it the profitablist. In March is your best buying of Sheepe: for Shepheards like such as haue well woyn out the winter. Whosoever will be a shepmaister, must regard the abilitie of his ground: for it is not enough to haue pasture in Summer, but they must be well provided for in Winter: in any wise you must haue store of pasture: and better it is, and moze profitable to the Maister, to keepe a few sheepe well, then a great number with scantie of pasture. Florentinus is of that fancy, that he would your number should

should rather be odde then euen, thinking that number moze fortunate, for the healthinesse, and long continuance of the cattell: but these are superstitious toyces, as are a great number other, imagined by the faithlesse. Be sure euery yere once, to make your muster, and supply the places of such as are dead, or sicke, with a new and a sound number, so that the Pastur be not deceiued with an old vnprofitable stocke. The hardnesse and crueltie of the cold Winter, doth oftentimes beguile the shepheard, and destroyeth many of his stocke: whereof (presuming of their strength in the end of the Summer) he had made no supply, and therefore Columella is of opinion, that the age for bred ought not to be lesse then thre yeres, nor aboue eight, both because that neyther of the ages is meete to be kept: and also that whatsoever commeth of an old stocke, hath lightly a smacke of his old parents imperfection, and proueth either to be barraine or woake. The selfe same Columella would haue the Ewes to be put to the Ramme after they had passed two yeres old, and the Ramme to be of five yeres old, and after seauen, to decay. In many places at this day, they suffer both the kindes to bred from two yere old, till nine: but before two yeres, it is not good to put eyther the Ramme, or the Ewe to bred, although in most places they suffer the Ewe at a yere old. The Ramme is put by his purpose, by the Wickers, or Bulrishes, tyed to the Ewes tayle, but moze commodiously, by going in seuerall pastures: howbeit, they are not commonly seuered, but suffered to go together. The Rammes that you would haue to serue your Ewes, must afoze the blossoming, be kept in good pasture, for two moneths, whereby they may be the better able to doe their businesse: but in our country, we commonly suffer them to fede together. To increase their lusts, you shall giue them in their pasture the blades of Onions, or Knot-Grasse: They rather couet the old Ewes then the yong, because they be easier to be entreated, and the Rammes themselves in age be the better. By knitting of the right knee, you shall haue Ewe Lambes, and of the left, Ramme Lambes: also their blossoming in the North-winde, getteth Ramme Lambes, and in a South winde, Ewe Lambes, one Ramme (as Didymus affirmeth) sufficeth for fiftie Ewes: when they haue all conceiued, the Rammes must againe be banished, for dangering

The third Booke,

and harming the Ewes. During the time of their blossoming, they are to be watred in one place (as both Varro and Plinie affirme) because the change of water both discoloureth the wooll, and dangereth the Lambe. The policie, of Iacob the Patriarch, in procuring of partie coloured Lambes, is well enough known. The best time for blossoming, is from the setting of the Baerward, to the setting of the Egle: (as Varro and Columella haue written) which is (as Plinie interprets it) from the third Ides of May, till the thirtene Kalends of August: others thinke it good all the yere long, many preferre the Winter Lambe before those that fall in the Spring, as a creature that of all others best brooketh his Winter birth. The thunder, if the Ewes goe alone makes them cast their Lambes, and therefore it is good to let them goe with company for auoiding that perill: they goe with Lambe one hundreth and fiftie daies, or five moneths: such as are afterward dammed, are feeble and weake, and such were of the old writers called Cordi: for the most part they bring but one Lambe a yere, yet oftentimes two, and if they be well fed, sixe at a time. It hath bene seene in Gelderland, that five Ewes haue had in one yere five and twentie Lambes: it may seme peradventure to many incredible, and yet no great maruaile, since they haue twice a yere most times two, and sometime sixe at a time. The Shepheard must be as carefull as a Midwife in the yeening time, for this poore creature (though she be but a Shcepe) is as much tormented in her deliery, as a shew, and is oftentimes the moze dangerously vexed and pained in her labour, in that she is altogether without reason: and therefore it behooneth the Shepheard to be skilfull in medicining of his cattell, and so cunning a Midwife withall, as if need require he may helpe his Ewe, what danger soeuer happen. The Lambe as soone as he is fallen, must be set on foote, and put to the dammes bodder, and oftentimes his mouth held open, the milke must be milked in, that he may learne to sucke, but before you doe this, you must be sure to milke out the first milke called Colostr, whereof I will speake hereafter: for this, except some quantitie be draine out, doth hurt the Lambe: if the damme die, you must suckle it with a home: if the Lambe will not of himselfe sucke, he must be put to it, and his lips annointed with sweet Butter, and Swines grease, and seasoned a
little

litle with sweet Milke. As soone as they are lamed, they must be shut vp together with their dammes, whereby both the damme may cherish them, and they learne to know their dammes. Afterward, when they beginne to waie wanton, they must be seuered with Dardelles: or (as Varro writeth) after ten daies they must be tied to litle stakes with some gentle stay, for hurting of their ioynts, and waing leane with too much play. The weaker must be seuered from the stronger, for hurting of them. And in the Morning betimes, befoze the flocke goe to pasture, and in the Evening when they be full, the Lambs must be put to their dammes: and when they waie strong, they must be fed in the house, with Clouer, and sweete grasse, or else with Branne, and Flowre. And when they haue gotten greater strength, they must be let out with their dammes about none, in so some sunny and warme Close nere adioyning. In the meane time, you must not deale with the milking of Ewes, so shall you haue them to beare the more wolle, and bring the more Lambes. When the Lambes are taken from their dammes, good heed must be had, that they pine not away: and therefore they must be well cherished in their weaning time with good pasture, and well kept, both from cold, and extreme heat. Now after that they haue forgotten the vnder, that they care not for their dammes, then shall you let them feed with the flocke: howbeit in most places the Lambes are suffered to feed in the flocke together with their dammes, and to sucke till haruest time, till the dammes themselves doe weake them. Varro would haue you not to geld your Lambes vnder five monethes old, and that in a season neither too hot, nor too cold: but experience teacheth vs, that the best gelding is vnder the damme when they be youngest: for in the elder (as in all other beasts) it is dangerous. Those that you will keepe for Hammes, you must take from such Ewes as vse to haue two at one time. The best pasture for sheepe, is the Grasse that is turned vp with the Plow, and groweth vpon fallowes: the next is that, that groweth in dry Meddowes: the marshly ground is to be refused, and that which groweth nere vnto Lakes and Fennes: the plaine and the champion Fields and Downes, are best for the delicatest and finest wolledd sheepe. To be short, the shorter and finer the Grasse is, the better it is for sheepe: and yet is there no pasture so

The third Booke,

good, or so fine, but with continuall ble your Shæpe will be wary of it, except the Shepheard remedie this fault with giuing them Salt, which (as a sance to their fode) he must set readie in Summer when they come from pasture, in little troughs of wood, by licking whereof they get them an appetite both to their meate and their drinke. For where as Shæpe wareth sonest fat with watering (Aristotle affirmeth) you most in Summer every fift day let them haue Salt, a pecke to euery hundred: so shall your Shæpe be alwaies healthy, ware fat, and yêd you plenty of milke. Moreover, against the Winter rotte, or hunger rotte, you must prouide to fode them at home in Cratches. They are best fed in the warmer countries, with the leaues and brouings of Elme and Ash, and the Haie that is made after Haruest in the end of Summer, because it softest, and therefore swæter than the other. With what hæde and carefulnesse this rattell is to be fed, Virgil declares, who wils a regard to be had of the time, both of their watering, and feding.

When Summer faire with Westerne windes doth call,
Your lustie flockes to woods and pasture send
Betimes, when day doth spring and ouer all
The gladsome grasse the hoarie dew doth bend.
From thence when as the fourth houre of the day,
With lostie Sunne doth make them drie to bee,
To wels or waters deepe go take thy way,
And make them drinke in troughes of Oken tree.

But in the none time, and the heat of the day, you must drine them to the ballies, and shads, (as he saith) a little after.

Wherefoeuer of Ioue the ancient Oken tree,
His broad and mightie branches spreads, or where
In sacred Groues of Holmes the shadowes bee.

After when the heat is past, you must drine them againe to the water, and so bying them againe to field.

When Sunne is set, and Euening starre appeares,
Then cooles the aye, and dewie Moone shee cheeres.

Varro affirmeth, that they diuided their pasturing times in Puglia after this manner. Firſt they put them out to pasture betimes in the Morning, when as the dewie grasse doth farre exceed in pleasantnesse, and swætnesse, the Grasse that being burnt with the

the heat of the Sunne, is ouer dry. About none againe, till it waxe cooler, they are to be driuen vnder some cold, or watric rocks, and broad shadowed trees, and toward the euening be suffered to fcede till Sunne set, alwayes hauing regard, that in their driuing, ther heads be from the Sunne : for no beast is so tender headed. Within a little after the setting of the Sunne, they must be driuen to water, and after suffered to fcede againe, till it be darke : for then is the Pasture swartest. This order is to be obserued from the rising of the seauen Starres, and the lesser Dogge, till the later Equinoctiall. The like doth Columella and Plinie teach, that after the rising of the Dogge, the flocke must asoze none be driuen Westward, and fcede with their face toward the West, and afternone they must bee brought againe Eastward. The fields whence the Corne is newly had off, is good to pasture them for two causes ; both for that they are well fedde with the leauings of the sheaves, and that with the trampling of the strawe, and dunging, they make the ground richer against the next sowing : but our Countrey men doe not well like, that Shæpe should fcede vpon the eares of Wheate. The Pasturing of them in the other seasons, as Winter, and the Spring, differs in this point: that they put them not abroad till the Sunne haue drawne vpon the dew, and hurtfull vapours of the ground, and so fcede them all the day long, thinking it sufficient to let them drinke at none : but our husbands vse not to suffer their Shæpe to fcede abroad in the Summer time, neither befoze the Sunne rising, nor after the setting, by reason of the dew, being moze hurtfull in Summer, then in Winter. In Winter, and the Spring time, they keepe them in a Fold, till such time as the Sunne hath drawne vpon the Rimes, and hoare Frosts from the Fields : for the frostie grasse, at this time of yere, stops their heads with Rhume, and fills their bellies full of water : and therefore in the cold and wet seasons of the yere, it is enough to let them drinke once a day. Hozeouer the Shepheard, as also the keeper of all cattell, must deale gently and louingly with their flocke, and comfort, and chæring them with singing, and whistling : for the Arabians (as Alianus writeth) do finde, that this kinde of cattel taketh great delight in Musicke, and that it doth them as much good as their Pasture. Beside, they must be well ware in the driuing of them

The third Booke,

them, and ruling of them, that they guide them with their voice, and shaking of their staffe, not hurting, nor hurling any thing at them, nor that they be at any time far off from them, and that they neither lye nor sit: for if they goe not forward, they must stand: for it is the Shepherds office to stand alwayes as high as he can, that he may playne and easily discern, that neither the slow, nor the great bellyed in laning time, nor the quicke, nor the liuely, while they roame, be seuered from their fellows: and least some thiefe, or wilde beast beguile the negligent Shepheard of his cattell. Of their Pasturing, I thinke I haue spoken sufficiently; and therfore I meane now to shew you of their Houses, or Sheepcoats, whereof there ought to be a speciall regard, that they be conueniently placed, not subiect to windes, nor stormes, and that they rather stand toward the East, then toward the South. Columella would haue them built low, and rather long then broad, that they may be warme in the Winter, and that the straightnesse of the roome hurt not the young. And beside, he would haue them stand toward the South: for this beast (though his garments bee warme) cannot away with cold weather, neither yet with the great heat of the Summer. I haue seene some Sheepe-houses so framed, as they haue had their gates toward the South, and toward the East, that they might answer to the seasons of the yere. Columella would haue the House set toward the South, and on the backe-side a close Posterne, where they may safely take the ayre. You must looke besides, that where they stand, the ground be made fayre and euen, something hanging, that it may be cleane kept, and that the urine may be well voyded away: for the wetnesse hereof doth not onely hurt, and and corrupt their fæte, but also spoyleth their coates, and maketh them ruffe and ill faouered. Let there be no moysture therfore, but alwaies well strawed with drie ferne, or strawe, that the Cwes that be with young may lye the softer and cleaner. Let their beds be very cleane; for the cleaner they lye, the better they feede: let them in any wise be well fed, for a small number (as I said before) well fed, yeld more profit to their Maister, then a great flocke barely kept. You must also haue seuerall partitions to keepe the weaker and the sicke, from the strong and vnruly. And thus much of housed sheepe, that are euery day brought home:

Sheepe
coats.

home: but in some places they are kept abroad, farre from either towne or house. In Forrests, and open wilde fields and downes, in these places the Shepheard carryeth with him his Hardles, and his Pets, and other necessaries, to fold his flocke withall. In the desert fields, when as the Winter pastures, and the Summer pastures, are distant certaine miles asunder (as Varro saith) hee would haue the flocks that haue wintred in Apulia, to be kept in Summer vpon the Mountaines of Kiete: and Virgill thus writeth of the Shepheards of Lybia:

What should I here of *Lybian* Shepheards tell,
 Or of their Pastures write, and dwellings poore,
 That night and day on Downes, and Desarts dwell,
 Where wanders still the Flocke without the doore:
 And on the ground doth lye the Shepheard heare,
 While he remoues with him continually
 His house, and all his household goods doth beare,
 His staffe, his dogge, and all his armory?

The like haue I my selfe seene in *Suytzerland*, and other places of *Germany*, where the Shepheard, lying still abroad with his flocke, folds his sheeps in the night with Hardles, tying their dogges about them for watchmen: the Shepheard himselfe in a little house vpon wheelles, sleepest hard by his charge. The sheepe of *Greece*, *Alia*, and *Toranto*, and those which they call, *Couered-sheepe*, are commonly vsed to be kept in houses, rather then abroad, for the excellencie and finenesse of their wooll.

EUPHOR. What times doe you appoint for the shearing of your sheepe?

HEDIO. The times of shearing, are not in all places one, Shearing of Sheeps.
 but varie, according to the disposition of the ayre, the cattell, and the countrey: the best way is to haue good regard to the weather, as the sheepe be not hurt by shearing in the cold, nor harmed by forbearing in the heate. In some places they haue two seasons in the yere for shearing of their sheepe: the first season for their shearing, is either with the beginning of *May*, or else with the ending of *Aprill*: the second season of their shearing, is about the beginning of *September*. Such as doe vse to sheare their sheepe

Sheepe but once in the yere, doe commonly appoint for their season the tenth of the Moneth of June: about which time also such as doe sheare swife a yere, doe sheare their Lambs. Thre daies before you sheare them, you must wash them well, and when they be full drie, you may sheare them: they doe not in all places sheare their sheepe, but in some places (as Plinie saith) pull them. The old Husbands did account for the best Wooll, the Wooll of Puglia, and that which in Italy was called the Greek Flæce: the next in goodnesse they toke to be the Wooll of Italy: in the third place they esteemed the Milesian Flæce: the wooll of Pullia is but short, and maëte to be woorne onely in riding Cloakes. The wooll about Toranto, and Canas, is thought to be passing good: but the best at this day is the wooll of England. The finer your Pasture is, the finer (as it is thought) you shall haue your wooll. The wooll of such sheep as are slaine by the Wolfe, and the garments made thereof, (as Aristotle saith) are abtest to bræde Lice. If you happen in the shearing to clippe the skinne, you must sozthwith annoint it with Tarre: when you haue shorne them, some thinks it good you anoynt them with the iuyce of sodden Lupines, Lice of old Wine, and the dzeggges of Dyle made in an oymntment: & after thre daies to wash them (if it be nere you) in the Sea, or if the Sea be farre of, with raine water, sodden with Salt. And being thus ordered, you shall not haue them to lose their wooll all the yere, but to be healthie, and to carry a dæpe and a fine flæce: and therefore Virgill biddes you,

Goe plunge them oft in healthy streames.

There be some againe, that would haue you to annoint them thre dayes in the yere, the dayes being some after you haue washed them with Dyle, & Wine mingled together. Against Serpents, that many times lie hid vnder their cribs, you must burne Cedar, Galbanum, or womans Hayze, or Harts hozne: in the end of summer is your time for drawing and seuering of them (as I told you before) when you must sell your sheepe, that through scablenesse, they sayle not in the winter. Beside, killing one or two of them, you must loke well vpon their Liuers, and if the Liuer be not sound (for thereby is soz esæne the danger) then eyther sell them, or fatte them, and kill them: for very hard it is to saue them their Liuers being perished. Infected Sheepe are moze subiect

subject to scabbes and mangineffe then any other cattell, which cometh (as the Poet witnesseth :)

When coldest stormes doe wet them neare,
And hoary frosts on ground appeare.

¶ If you wash not off the sweat of the Summer with salt water : or otherwise, if when they be shorne, you suffer them to be hurt with brambles, or thornes : or if you put them into houses, where either Horses, Oxes, or Asses haue stode : but specially lacke of good feeding, whereof proceedeth poorenesse, and of poorenesses scabbes and mangineffe. The sheepe that is infected is thus knowne, If he epyther scratch, stampe with his foote, or beate him selfe with his horne, or rub himselfe against a tree : which perceiuing him so to doe, you shall take him, and opening his woll, you shall finde the skinned ruffe, and as it were itchie. Diuers men haue diuers remedies for this maladie, but such as are not at hand to be had : Virgill thinks there is no present remedie

Then at the first to clippe away the scare :
For being hidde, it festreth the more.

Constantine out of Dydimus affirmeth, that the scabbes of sheepe are healed by washing them with vrine, and after anointing them with Bizimstone and Oyle. The common Shepherds, when they perceiue a sheepe to fall a rubbing, they straightwaies take him, and shedding the hayze, doe seare the place with Tarre: others doe teach other remedies, more hard to come by, which are not for euery Shepheard, nor euery Countrey to vse. And if the whole Flocke be infected, it doth many times so continue, as it shall be needfull to change houses, and (which in all other diseases behoueth) both Countrey and ayre. This one alonely medicine haue I alwaies proued for the keeping in health of this cattell, to be most present and soueraigne : Take the berries of Juniper beate them small, and sprinkle them with Dates and Salt, mingle them all together, and giue it your sheepe thre or foure times in the yeere : for though they refuse to eate the Juniper berries of themselves, yet for the desire of the Salt and the Dates, they will easily take them all together. If they be lowse, or full of tickles, they vse to beate the rootes of Haple, and seething them in water, and opening the woll with their fingers, they poluze the liquor, so as from the ridge of the backe, it runne ouer the body.

Others

Others vse the roote of Mandrake, being well ware that they suffer them not to tast it. If they haue the Feuer, you must let them blood in the heele, betwixt the two Clées, which the Doct teacheth, saying :

It easeth straight the flaming feauers paine,
If in the foot you strike the spinning veine.

Some let them blood vnder the eyes, & some behind the eares. The fowle, a disease betwixt the Clées, is taken away with Tarre, Al-
lom, Bismstone, and Veneger, mingled together : or powder of
Verdigrease put vpon it. The swelling betwixt the two Clées,
must be cut with great warinesse, least you hap to cut the woyme
that lieth in it, for if you doe, there commeth from her a hurtfull
matter, that poysoneth the wound, and maketh it incurable. Ma-
ster Fitzherbert, a Gentleman of Northamptonshire, who was the
first that attempted to write of Husbandry in England, appein-
teth this cure : his words be these. There be some Sheepe that
of Sheepe. haue a woyme in his foot, that maketh him to halt, take that sheepe,
and loke betwixt his Clées, & there you shall finde a little hole, as
much as a great pins head, wherein groweth sixe or seue blacke
hairens like an inch long, or moze : take a sharpe pointed knife, and
slit the skin a quarter of an inch long aboue the hole, and as much
beneath, and put thy one hand in the hollow of the foot, vnder the
hinder Clée, and set thy thumbe aboue, almost at the slit, & thrust
thy finger vnderneath for ward, and with your other hand, take the
blacke hairens by the end, or with thy knives point, and pulling the
hairens a little and a little, thrust after thy other hand, with thy fin-
ger & thy thumbe, and there will come out a woyme, like a peece of
flesh, nere as big as a little finger : when it is out, put a little Tar
in the hole, & it will shortly mend. If they happen by the extreame
heat of the Sunne to fall downe, and to forsake their meat, giue
them the iuice of the wilde Beete, and cause them beside to eate
the Beets. If they hardly drain their breath, slit their eares, and
let them bleed. If they be troubled with the Cough, Almonds
beaten with Wine, and powred a prettie quantitie into their
nostrils, remedieth them. A Sheepe, or Swine, that hath the
The Mur- raine of the Lungs, you shall helpe by thrusting through
of shee Lungs. the Lungs. their eare, the roote of Setterwort : this sicknesse doth commonly
spring of want and scaritie of water, and therefore (in Summer
time

fine (specially) you must suffer no kinde of Cattell to want water. Their legges, if they happen to be broken, are to be cured in like sort as mens be, being wrapped first in wooll dipped in Oyle, and Wine, and afterward splented. The young Lambes, and other Shéepe, also while they goe abroad, are troubled with scabs and manginess about their lippes, which they get by feeding upon dewie grasse: the remedie is Hyssope and Salt, of each a like quantitie beaten together, and their mouthes, their pailats, and their lippes rubbed withall: the ulcerous places must be annointed with Vineger, Tarre, and Swines grease. If they chauce to swell with eating of any Worme, or venomous grasse, you shall let them bloud in the veines about the lippes, and vnder the taile, and after polvre into them Chamberlye. If they happen to swallow a Horseleach, polvre into them strong and tart Vineger warme, or Oyle. Against the Murrion, or the Rot, I haue sene giuen them, certaine sponesfuls of Bizine, and after a little Tarre: this medicine was vsed by Maister Iohn Franklin of Chart in Kent, who was in his life time a skilfull husband, and a good housekeeper. In like sort haue I sene this medicine: Take for enery soze, one peny-worth of Triacle, and likewise one little handfull of Hempseede, ground Iuie, Elder leaues, and Fethersew, as much as a Tennisball of Loame, and as much Bay salt, put thereto Chamberlie, & a little Sote, make it all luke-warme, and giue to euery one thre sponesfuls good, and after euery one a little Tarre, befoze they goe out of hand. In some places they vse to take the dyed stolures of Wormewood, and mingling them with Salt, they giue them to their shéepe, as a generall medicine against all diseases. This medicine is commended by Hieronimus Tragus, both for allwaging of any paine, and drying away any hurtfull diseases from Cattell.

EUPHOR. God Hedio forget not to speake something of your Goates.

HEDIO. Goates haue many thyngs common with Shéepe: for they goe to Bucke at one time, and goe as long with young, as Shéepe doe: they p'aid commoditie with their Flesh, their Milke, their Cheese, their Skimmes, and their Hayze: the Haire is profitable to make Ropes of, and Parkes, and diuers like instruments, belonging to Sea-men, by reason that it neyther rote with

Lambes.

Eating
Wormes
or veno-
mous
grasse.Maister
Iohn Frank-
lin.

Goates.

The third Booke,

with moisture, nor is easily burnt with fire. Varro maketh mention of two sortes of them, a heary sort, and a smoth. Such as haue *Uennes*, or *Wartes*, vnder their chinnes, are taken to be most fruitfull: their *Uadders* would be great, their *Milke* thicke, and the quantitie much. The hē *Goate* would be softer haped, and longer, his *Pecke* short, his *Throat* boll deeper, his *Legges* fleshy, his *Eares* great and hanging: it is thought better to buy the whole *stocke* together, then to buy them severally. At the *Chinne* of every one of them hangeth a long beard, which *Plinie* calleth *Arunum*, by which, if any man draw one of them out of the *stocke*, the whole *stocke* (as amazed) stand gazing vpon him. The hē *Goate*, because of his beard, and as (*Alanus* saith) by a certaine instinct of *Nature*, preferring the male before the female, goeth alwaies before his woman. The bargaining for this *Cattell*, is not after the manner of bargaining for *Sheepe*: for no wise man will promise that they be free from sicknesse, being as they be, neuer without the *Ague*: but he assures them that they be well to day, and can drinke. One thing is to be wondred at in this *Beast*, that he draweth not his winde as all other beastes doe at his *Nose*, but at his *Eares*. The best kindes of them, are those that bring forth twice a yere, and such you must seeke for your breede. The *Goate* is able to engender at seauen moneths olde, being euen as lecherous as may be: for while he is yet sucking, he will be vpon the backe of his damme: and therefore he wareth feeble, and vnable, before he be five yeres olde, being now soked and consumed with his ouertimely lasciuiousness of his youth: and therefore after he come to be five yeres olde, he is no longer to serue your turne for breede. The time when you shall suffer them to go to rutte, is in *Autumne*, a little before *December*, that at the coming of the *Spring*, and blossoming of the trees, the young may be brought forth. The *Goate* goeth with young (as I said) five moneths, as the *Sheepe* doth: she brings forth commonly two, and sometime five (as *Plinie* witnesseth.) Such as beare twice, you must keepe for your *stocke*, for the reuening thereof, and the increase. As touching their breeding, you must in the end of *Autumne* seuer your hē *Goates*. The young *Goates* of a yere old, and two yeres, bring forth *Kiddes*: but (as *Columella* saith) they are not to be suffered to bring them vp,

except they be thre yeres old : and therefore you must away with the young, that the Goates of the first yere may breed : and suffer the Kidde of a two yere damme, to sucke no longer then it is meete to be sold. When the Kiddees are brought forth, they must be brought vp in like sort as I told you of the Lambes : sauing that the wantonnesse of the Kidde is moze to be restrained and hiedlier to be kept in, and must be fed beside their milke, with young bowres. Plinie affirmeth, that they be scarce good for breede at thre yeres old, but if they passe soure, they be scarce nought, and that they begin at seauen moneths, euen while they be vnder the mothers breast. The first riding profereth not, the second is somewhat to the purpose, the third speedeth, she brings forth, till she be eight yeres old, and therefore the she Goats, when they be aboute eight yeres, is not to be kept : for she then becommeth barraine. Those which want hornes, (as in the male kindes) of all others be the best : for the horned, by reason of their weapons are hurtfull and vnruely. Besides, the female of such as lacke hornes, doe giue alwaies greater plenty of milke : but Columella (as he commendeth the Dollardes in a temperate and milde countrey) so in a boysterous and a stormie Region he would haue them horned. Such as haue hornes, doe shew their age by the circles of their hornes : it is thought, that they see as well by night, as by day, and that they alwaies ley their faces turned one from the other, and in that order also feede. Cold (as it is said) is very hurtful to this kinde of cattell, specially to those that be with young, as likewise the extreame heate. The wit of this beast Nurius reporteth, he once had experience of, whereas a couple of them chanced to meete vpon a very long and narrow Bridge, and the straightnesse would not suffer them to turne, and to go backward blindfold in such a straight, considering the swiftnesse of the streame vnder them, was moze vnpossible, the one of them lying downe the other passed ouer his body. Varro doth commend sundrie little flockes kept severall, rather then great flocks together, vsing for example one Gaberijus, because a great flocke is sooner subiect to the murraine, thinking fittie to be enough for one flocke. Columella also affirmeth, that there ought not to goe aboute one hundred of them together, whereas of Sheepe he alloweth a thousand in one flocke. The biting or bwi-

The third Booke,

king of them, is poyson to all kinde of *Trés*, and therefore were they in old time sacrificed to Bacchus, because they were so hurtfull to *Vines*. Their stables *Columella* would have to stand by, on a stonie ground, or else to be paved, for this beast needeth nothing vnder him but a few boughes: when he lieth abroad, the Shepheard must often sweepe and make cleane their houses, not suffering any dung, or moisture to remaine in them, that may be hurtfull to the flocke: for as I said before, they are seldome without Feauers, and much subiect to the pestilence. And whereas other cattell, when they haue the *Murraine* among them, as soone as they be infected, begin to languish, and pine away: onely these *Goates* as soone as they be taken, though they be neuer so lustie to looke vpon, suddenly fall downe together, and die as thicke as *Halle*: which disease doth chiefly happen, by too much rankenesse of pasture. And therefore as soone as you perceiue one or two of them fall downe, let the whole flocke blood, with as much speed as you may, and suffer them not to feed all the day, but shut them by the foure middle houres of the day. If they be diseased with any other sicknesse, you must giue them the *Rootes of Ruedes*, and of the great white *Thistle*, stamping them with yron pestles, and strained with raine water let them drinke it: and if so be this medicine heale them not, your best will be to sell them, or to kill them, and powder them: and when you buy new, bring them not home too hastily, till the disposition of the ayre be altered. If they fall seuerally sicke, cure them in such sort as you doe your *Sheepe*. *Florentinus* saith, if you stamp with water the gullard of the *Stork*, and giue them to drinke a sponsfull a peece, it preferueth both *Sheepe* and *Goats* from all murraine and pestilence. If their bellies be swelled with water, which the *Grecians* call *ὕδρα*, the *Dropsy*, if the skinne be lanced a little vnder the shoulder, it lets out the hurtfull matter, and you may heale the soze with *Tarre*.

EVPHOR. You haue for your part very well satisfied vs, touching the good ordering of your cattell: there remaines yet one thing for you, which you all forgate to speake of, and that is the ordering of *Milke*, our chiefest foode and sustenance.

HEDIO. Seeing that of this cattell whereof I haue entreated, the profit of the *Milke* is not small, it is no great reason we should

Should ouerpasse the ordering of the same : for Milke (as Varro saith) of all liquid things wherewith we feede, is the greatest nourisher. Milke differeth in goodnesse according to the nature of the bodies that giue it : as the Milke of Women, of Kine, Sheepe, Goates, Asses, Hares, and Cammels : the greatest nourisher is Womans Milke, the next Goates Milke, whereby the Poets saine, that their God Iupiter himselfe was nursed with Goates Milke : the swætest next Womans Milke, is the Cammels Milke : the wholesomest is Asses Milke, the Ass as soone as he is with Colt, giueth milke : the Cow, neuer till she hath calued : most comfotable to the stomacke is Goates milke, because he rather feedeth on Bruts and Bowes, than vpon Grasse. Cow Milke is most medicinable, and most of all loseth the bellie. Sheepes Milke is swæter, and nourisheth more, but is not so good for the stomacke, by reason it is fatter and grosser. All Milke that is milked in Spring time, is watrisher then the milke of Summer, as likewise is the milke of young cattell : it is wholesomer being sodden, specially with the Pebbles of the Sea.

The Sheepe about Pontus, nere to the riuer Astacc, doe giue (as Plinie saith) blacke milke. All milke generally (as Dioscorides writeth) is of good nourishment, but filleth the stomacke and the belly with winde : that which is milked in the Spring, is thinnest but loseth the belly most. The difference of milke, is taken (as Varro saith) of the pastures, the nature of the cattell, and the milking. Of the pasture, when the cattell is fed with Barly Straw, and all other hard and dry meates, and this greatly nourisheth. For purging of the belly, the grasse pastures, specially where the cattell feed of purging hearbes, as Cardanus in his booke de Plantie teacheth, that if you will purge Melancholy, you must feed your milch Goate, or Ass, with Polipodi, and for all other humours Sene, for the Droplie with Spurge, or Agaricke : for cleansing of the blood, with Fumitory, or Hoppes : and if you will but onely lose the belly, with Mercury, or Pallowes : so farre Cardanus. Our counteymen doe chiefly commend for milke, the pastures where groweth Spery, and Clauer-grasse, and that is all bedeckt with yellow flowres. For the cattell, the difference is betwixt the sicke and the healthie, the young, and the old : and for the milking, that is best that is not long kept after the milking, nor

Blacke milke.

Error in the vnderstanding of Dioscorides,

The third Booke,

Butter.

that is milked immediately upon the Caluing, a grosse vntwhole, some kinde of Milke. To trie whether Milke be mingled or not, you shall take a sharpe Rush, and putting it into the Milke, let it drop from thence vpon your Paile, and if the drop runne abroad, it is a signe there is water in it: if it keepe together, it shewes it to be pure and good. Of Milke is made Butter, whose vse (though it be chiefly at this day among the Flemings) is yet a good and profitable soode in other Countries, and much vsed of our old Fathers, yea euen of the very Patriarches (as the Scriptures witnesseth.) The commoditie thereof, besides many other, is the allwaging of hunger, and the preserving of strength: it is made in this sort. The Milke, as soone as it is milked, is put out of the Paile into Bowles, or Pannes, the best are earthen Pannes, and those rather broad then deepe: this done, the second, or the third day, the creame that swimmes aloft is sketted off, and put into a vessell rather deepe then big, round and Cylindrer fashion: although in some places they haue other kinde of Charms, low and flat, wherein with often beating and mouing vp and downe, they so shake the Milke, as they seuer the thinnest part off from the thicke, which at the first, gathers together in little crombles, and after with the continuance of the violent mouing, commeth to a whole wedge, or cake: thus it is taken out, and eyther eaten fresh, or barrellled with Salt. The Butter-milke that remaineth of the Butter, is eyther kept for the family, or giuen to Calues and Hogges, as a dainty food. Cheese is also made of the Milke of cattell, the Milke being powred into a Vessel of earth, putting into it a little rennet, the quantity of a Walnut, in a great vessell of Milke, whereby it runneth into Curd. Varro doth better like the Rennet of the Leuret, or the Kid, then the Lambes: howbeit, we commonly vse the Calues Rennet: others vse sundrie other meancs, onely with heate, warming it in Tinne vessels, and after dipping those Vessels in cold water, which is the sweetest and cleanliest maner: others put in the seede of wilde Saffron, and being so turned, the Whey doth greatly purge steame: others againe vse the Milke of the Figge tree, and then doth the Whey purge both choler and steame: some purge it with Drimell, or Syrope of Vineger, which is of all other waies the wholesomest: some besides, vse the little

Cheese.

skinne

skinne of Birds Quills, and others, the soluzes of wilde
 Whistles, or Hartichokes. The newer and better the Milke is,
 the better will be the Chæse: for made of two sorts of Milke, or
 Milke that is too nere stæted, it soone soluzeth, and wareth hard
 and nought, and is not to endure any while. Again, being made
 of fat and new Milke, it will very long endure, and long conti-
 nueth in his fatnesse and softnesse: about a two or thre houres
 after you haue put in your Kennet, the Milke commeth to a
 Curd, which is straight waies put into Formes, or Cheese-
 fats, and pressed: or if they be but small, they are onely pressed
 with the hand. If they be of any quantitie, they haue great
 waight vpon them: it is very needfull you presse out the Whey
 with as much speed as you can, and to seuer it from the Curd, and
 not to let it lie slowly drayning of it selfe. Those that make great
 Chæses, haue moulds for the purpose, and Waights and Presses
 answerable. After this, they take them out of the Presse, and
 lay them vpon Herdels, or faire smooth Tables, in a shadowie
 and a cold place, and close from all windes, sprinckling them all
 ouer with Salt, that they may sweat out all their soluzence, lay-
 ing them so, as they touch not one the other. When they be now
 well hardened and thickned, they are taken vp, and pressed againe,
 with great weights, and rubbed ouer with parched Salt, and Af-
 ter laid in presse againe, whereby it is thought they will ney-
 ther haue eyes, nor be ouer drie: which faults hapneth to come
 when they be eyther not well pressed, or too much salted. Some
 vse to put into the bottome of their Pailles, the græne kernels
 of the Pine Apple, and milking into them, doe cause it so to turne.
 You may also cause your Chæse to relish of whatsoeuer you will,
 as Pepper or any other Spice: but Columella counts that for
 the best Chæse, that hath least mixture in it. The strongest
 Chæse, and hardest of digestion, are those that are made of Buffes
 milke: the next are such as are made of the milke of Ewes, but
 the mildest, and lightest of digestion, are those that are made of
 Goates milke: the Cheese that is made of Mares milke, is of
 the same qualitie that the Buffes Chæse is. There is Chæse
 also made of Cammels milke, and of Asses milke: the Chæses
 that are made of Buffes milke, are at Rome, of all other cattell in
 greatest estimation. Such as are touched both aboue and beneath,

The third Booke,

and haue moze then foure Pappes, you can make no Chæse of their milke, for it will neuer curd. In our daies, the best Chæses are counted the Parmasines, made about the Riuer of Po, & skæined for their greatnesse, and daintinesse, of which you shall haue brought into other countries that weigh about threëscore pound. Next are commended the Holland Chæse, the Chæse of Normandie, and the English Chæse. In England the best Chæse is the Cheshire, and the Shropshire, then the Banbury Chæse, next the Suffolke, and the Essex Chæse, and the very worst the Kentish Chæse. The places where the best Chæse is made, appeareth by this old English Distichon, better senced, then soted.

Banbury, Langtony, Suffolke good Chæse, Essex goe thou by,
Shropshire: *cum* Cheshire, Hertford may wel with the best pære.

Of the discommoditie of Essex Chæse, our English Partiall Iohn Haywood, thus merrily writeth:

I neuer saw Banbury Cheese thicke enough,
But I haue seene Essex Cheese quicke enough.

Chæse they say will best endure, and is longest preserved, if you keepe them in heapes of Pulse, or Wheat. and if you keepe your Kennet in the iuyce of Brych, you shall be sure to haue neyther Mite nor Cræper in your Cheese. The Cheese that is soft and new, doth moze nourish then the drie, and be moze comfortable to the stomacke, not long in digesting: the old is contrarie, according to the proverbe. No Cheese good but the new. Old Cheese will become new in taste, if you lay them in Lime, Vineger, or in Wine: if thzough age it be hard and bitter, let it be rubbed ouer with Heale of vndried Barley, and then dip it in water, and after, the outer rinde scraped off. We haue oft times proued, that hard Cheese wrapped in Clouts wet in Vineger, or Wine, and oftentimes sprinkled with Wine, and so laid by, returne to a softnesse, and a very pleasant taste. Some lay it in Leauen, covering it close therewith, and thereby make it soft. It is reported, that Zoroastes liued twentie yæres in wildernesse with Cheese so ordered, as it neuer wared old.

EUPHOR. Of the Whey that commeth from the Cheese Welcurds. being sod with a soft fire, till the fatnesse of the Cheese swimme aloft, are made Welcurds.

HEDIO. You were wont to loue them well.

EVMEVS. I doe indæde, specially if there be good store of new Milke put to the Whey. The old writers doe teach the making of a kinde of white meate, not much vnlike to Melcurds, which they called Melcan, and made it in this sort. They put into a new earthen vessell Vineger, and suffered it to boyle softly upon the fire, till the vessell had drunkt by the Vineger, and into that vessell they poluered in Milke, and set it where it might stand stedfast, whereby they had within a while their desire. But methinketh I haue for my part done enough, it commeth now to your turne EVMEVS to goe forward with the rest.

EVMEVS. That the keeping of Swine belongeth to Hus- Swine.
bandrie, doth euidently appeare by the saying of the ancient husbandes, counting him a slothfull and an vnchristlike husband, that hath his Bacon rather from the Butcher, then from his owne Koofe: for there ariseth as great profit many times to vs of our owne Swine, as doth to you that be keepers of greatestt cattell of your flockes: for if Bacon be away, the chiefest supporter of the Husbandmans kitchin is wanting. And whereas Swines flesh seemeth abhominable to the foolish Iewes, I beleue verily they neuer tasted the Camonds of France, so highly commended by Varro, Strabo, Athenens, and other learned writers: which I suppose were none other but the stiches of Westphaly, so greatly esteemed at this day, not onely in Germanie, but in Rome, and that they were called by the names of Celticke Camonds, because the old writers, especially the Grækes called all Countries on this side the Alpes, both French and Dutch, by the name of Celticke. Surely there is no beast besides, that makes moze daintie dishes, there is in him nære fiftie different tastes, where euery other beast hath but one, and hereof came at the first the Harpe Law of the Censozs, forbidding it to be vsed at suppers, the Adders, the Stones, the Tripes, and the forepart of the heads of Swine, (as Plinie witnesseth.) And most apparant it is, that not onely the French, and the Dutch in those daies, but also the Italians, and the Grækes, nourished great herds of Swine. Among the Grækes, Homer maketh mention of one of my name, that had twelue Hogstyes, euery stye contayning fiftie Porklings, and Polybius writeth, of moze

The third Booke,

then a thousand to be readie at a time among the ancient Italians, Tuskans, and French. Varro accounteth a hundred but a small heard. Who so will nourish Hogges, must haue regard both to the fairenesse, and the age. Varro addeth beside the nature, the kinde and the countrey. And because the young doe commonly resemble their parents, he would haue you choose such as are faire, and large bodied, and which makes most to the matter, as fruitfull as may be: which Varro, doth chiefly commend those that be of one colour, their bristles would be thicke, and blacke, if it be in a cold countrey: if in a temperate, you may nourish the smooth. Their proportion would be long, large-sided, and belled, wide buttocked, short legged, and footed, bigge necked, and well bzawned, short groined, & turning vpward, his taile wrinkled. The kinde is most commended, that bringeth many Pigs, the countrey that breadeth large and great: the best age for the Boare, is a yere old, though at halfe a yere old they are able to serue a Sow: one Boare is enough for tenne Soves, and moze. The Sow is sufficient to bring Pigges at a yere old, and so for seauen yere after, the fruitfuller she is, the sooner she wareth old: at the first farrowling, you shall easily see what number she will bring forth: she will not much differ in the other. The best kinde of Soves haue twelue pappes, the common sort tenne, or not so many. Euery Pigge doth know his owne Pappe that that he was borne too, and sucketh onely that, and none other: if you take away the Pigge, the Pappe drieth, as both Plinie, and experience sheweth. They were wont to be bought and bargained for in this sort. Doe you warrant that these Swine are sound, that I shall well enioy them, that you will answer the faults, and that they be of a healthy breede: A wet moorish ground is meetest for this cattell, for he delighteth not in water, but in dirt and myze, so much (as Varro writeth,) that the Wolfe, as soone as he hath caught a Sow, draggeth her to the water, because his teeth are not able to abide the heat of her flesh. And although this beast will alway with any ground, (for he feedeth both in mountaines, champion, and marish,) yet his chiefe delight is in the woods that is full of quagmires, where there groweth store of Oke, Cozke, Beech, Haltholme, wilde Oliues, wilde Dates, Halsemits, Crabbe trees, Plome trees, and

Cherie

Cherie trees : for these beare fruit at diuers times, and feed the Hears almost all the whole yere. Where there wanteth Woods, they must be fed from the ground, whereof a Parrish is to be preferred befoze a dry ground, that they may mouzell in the Marsh, digge vp Wormes, walloin in the myze, and tumble in the puddles of water, which in Summer is most needfull. They also hunt after rootes, specially Ferne rootes, and the rootes of Bultushes, Rushes, and Sedges, beside good Grasse well feedeth a Staine, and Orchards of Cherries, Plums, Apples, and Puts: and notwithstanding all this, the Barne, for you must feede them often by hand, when meate sayles abroad : and therefore you must preserue stoze of Acornes, in Cestornes in the water, or dyed vpon smokie stozes, also Beanes, Pease, and Tares must be giuen them, and not so much as Barley spared : for this kinde of feeding doth make them faire, and not onely fats them, but giueth the flesh a pleasant taste. When they are yet young, and sucke, both they, and their Dammes must be well fed, they must be put to feede early in the morning, afoze the heat of the Sunne, and after kept in shadowy places, where there is good stoze of water. Afoze they goe to pasture, they must be medycined, lest the Grasse scarre them too much, by which they will be greatly weakened. In Winter they must not be put abroad, till the frost be off the ground, and the Ice thawed. And though the Swine will runne at the knowne voyce of the Swinheard, yet Varro will haue them brought both to pasture, and homeward, with the sound of a Hoze : their meate must be giuen them scattered thin, so shall both lesse suffice, and the greater shall not harme the smaller : as sone as they heare the Hoze, though they be neuer so farre off in the Woods, they come running with all haste. Polybius telleth, that the Italians vse not to follow their hears, as the Griekes and others doe, but going a prettic way befoze them, they blow their hozes, their Hears being acquainted with the blast, doe follow them in great order. They doe so weil know, and obey the call of the Swinheard (if we may beleue Alianus, that when certaine Houers, landing vpon the Coast of Tuskan, and taking great numbers of them out of their Sties, carried them aboard, the thieues hauing weighed vp their Anker, and being vnder saile, the Swine vpon the hearing of their

A wonderfull
know-
ledge in
Swine.

keepers :

keepers voyce, suddenly ran to the one side of the Shippe, and overturned her, whereby (the Pirates drowned,) the Swine came safe to land to their Maisters. As I haue here told you of the conditions of the Boare and the Sow, and of their keeping; so will I now shew you the manner of their breeding: The Breeding time is reckoned to be from Winter, till the twelfth of March, so shall you haue them to farrow in Summer: for the Sow going foure Moneths with pigge, farroweth in the fift. She is with pigge at the first breeding, but they vse to let them goe often to Boare, because they sone miscarrie: and if you will haue two farrowes in one yere, you must put your Sow to Boare in Februarie, or Januarie, that she may farrow in Aprill or May, when as there is good pasture abroad, and Milke is in his chiefe strength: and when they be weaned, they may well fede vpon straw, & grottens: and after, the Sow may farrow againe in the end of Autumne: for Varro saith, her farrowing times are so diuided for the nonce, as she may farrow twice a yere, while she hath foure Moneths to beare them, and two to fede them. As sone as they be with pigge, you must keepe the Boare from them: for with his vnrulinesse, he maketh them to cast. Young Swine for breede, must not be lesse then a yere olde, as Varro would haue it: howbeit they begin at eight moneths, and continue seauen yeres. The Boare beginneth at eight moneths, or sixe, and continueth well foure yeres, and after, at thre or foure yeres olde, you may geld them, and fat them. Some would not haue you keepe by aboue eight, others not aboue sixe: not that the Sow is able to keepe no more, but that she that keepeth more, sone fayleth. Varro reporteth, that the Sow of Aneas Lavinus, farrowed at one time thirtie white pigges: but it is monstrous when she farroweth more then she hath pays. Euery Sow must haue her Stie by her selfe when she hath farrowed, and not suffered to goe with the whole Heard, as other cattell are, but little Coates to be made for them, wherein they may be kept eyther farrowing, or with farrow: for Swine, if they lye together in any number, being commonly ill manered, doe lye one vpon another, whereby they hurt such as are with pigge. And therfore you must haue seuerall Sties where they may farrow, and made high, that the Sow cannot get out: for covered they must not be

by any meanes, that the Swineheard may loke that the Sow ouerlay none of them, and to see what they want, that he may make them cleane, and as oft as he cleanse it, he must straw sand, or such like, to drie by the moisture: for though she be but a swinish creature, yet loueth she to haue her chamber cleane. When she hath farrowed, she requireth greater quantitie of meate, whereby she may giue the more Milke, specially Barley steeped in water, or ground, and tempered with water. And if you haue not good store of meate, your best is to sell the Piggess: so shall the Damme, being deliuered of her burden, bee sooner with farrow againe. Such as are farrowed in Winter, are commonly poore and wretched, both because of the cold, and that their Dammes doe not like them for wanting of milke, and biting their Papps. If the Sow eate her Piggess, it is a wonder: for Swine of all other beastes, can worst away with hunger, which when it prouoketh, they eate not onely their owne, but young children, which not long since happned in Suffer, to the pittifull discomfort of the Parent. They suffer not the Sow to goe abroad in tenne dayes after her farrowing, except it be to drinke: after, they suffer her to goe about the house, that she may the better giue milke. When the Piggess ware great, they desire to goe abroad with their Dams, at which time they are sedde by themselves apart, to the end they may the sooner forget their mother, which they will doe in tenne daies. It behoueth the Swineheard to be careful & diligent about his charge, that he haue in memozy euery one of them, both old and young, that he consider euery farrow, and shut vp those that be great with pig, that they may farrow in their stie. He must haue special regard of euery young pig, that euery one of them be brought by vnder his owne damme: for if they get out of the stie, they straightwaies mingle one company with another, whereby the poore Sow is forced to giue milke many times to more Pigs then her owne: and therefore the Swineheard must shut vp euery Dam with her owne Pigs. And if his memozy serue not to know them all, let him pitch euery Sow and her Pigs with a severall marke: for in a great number it shall behoue him so to doe, for confounding his memozy. The olde Husband obserued alwaies two times in the yere for cutting of them, the Spring, and the fall of the lease, whereby they

A Childe
eaten by a
Sowe.

The third Booke,

auoyded the danger both of the heate and cold. The Boare pigs they cut when they were sixe Moneths old, and againe at foure yeere old, to make them fatte, making two woundes, and taking out the stone of euery side: or else when you haue taken out one stone, you must thrust your knife againe into the wound, and cutting asunder the skinne betwixt both the stones, draw out with your fingers the other, so shall you make but one scarre: but this kind of cutting is somewhat more dangerous. The Sowes are spaide by burning the Matrix with an Iron, and the scarre healed vp, whereby they will both haue no more pigges, and be the fatter. Aristotle, and following him Plinc, would haue the Sow after two dayes fasting, hanged vp by the fore legges, and so cut, whereby she will be the sooner fat: but I iudge it better to cutte them when they be young, at two Moneths old, or younger, for so are they in least leopardie. After they be cut, you must keepe them from drinke, and giue them but little meate: the wound must bee annoynted with fresh Butter, and solued vp. As the wriskling and turning vp of the taile is a signe of a sound Hogge, so be there certaine and assured signes of their sicknesse: for if you plucke off the bristles from the backe, and finde that their rootes haue blood in them, it shewes the Swine is not well. Besides, if your Hogges be sicke, or taken with a Feur, they hang their heads at one side, and suddenly as they runne abroad, they stay, and being taken with a turning giddinesse, they fall downe: and therefore you must marke well on which side they hang their heads, that you may cut the eare of the contrarie side to let them blood: and vnder the tayle beside, two inches from the rumpe, you shall strike the vaine, which there is easily to be seene, by the bignesse of it: you must first beate it with a little sticke, and after it swelleth with the beating, open it with your knife, and hauing bled sufficiently, binde it vp with the rinde of Willow or Elme: after this, keepe them vp in the house a day or two, and giue them warme water, with a good quantitie of Barly flower. If the Quinsey or Vuula, (to which disease this beast is wondrous subiect) chaunce to take them, Dydimus would haue you let them blood behinde about the Shoulders, others vnder their tongue: some againe cure them with setting. If the kernels swell in the throat, you must let them blood vnder the tongue,

Of diseases
in Swine,
and the
cure.

The
Quinsey.

and when they haue bled, rubbe their mouthes within with salt, finely beaten, and wheate flower: Democritus would haue you giue to euery Solwe, three pound waight of the beaten roote of Daffadill. If they vomit, and loath their meate, it is good to giue them before they goe abroad, the shauings of Iuorie, fryed with salt, and ground Beanes. Swine while they sode abroad, by reason of their great deuouring (for it is an unsatiable beast) do wonderfully labour with the abundance of the Spleene: for remedie whereof, you shall giue them water as oft as they thirst, in Troughes made of Tamarice, the iuyce of which wood is very wholesome for them. Democritus teacheth to giue vnto Hogs that haue the Spleene, the water wherein the Coales of Heath hath bene quenched. This beast hath sometime a sickness wherein he pines alway, and forsaketh his meate: and if you bring him to the field, he suddenly falleth downe, and lyeth as it were in a dead sleepe: which as soone as you perceiue, you shall shut vp the whole Heard in some house, and make them to fast one day, both from water and meate: the next day, the roote of the wilde Cucumber stamped, and strained with water, is giuen them to drinke: which as soone as they haue taken, they fall a vomiting, and so purge themselves. When they haue thus expelled their choler; you shall giue them hard Beanes, strained with Wyne. An excellent medicine against all Pestilence of Swine, doth Hieronimus Tragus teach, which is; when you see them infected, to giue them the Rotes of Polipodi, or Oke Ferne boyled in Wine, whereby they shall purge whatsoeuer is euill from them, and most of all choler, wherewith Swine are most troubled. The same Hieronimus (as I remember) teacheth for a Horse (though it be without my commission to meddle with them:) If he be sick, and suddenly fall downe of a disease that you know not, to put vnder his tongue a peece of a Ferne roote, wherupon you shall see him immediately boyde vppward and downeward whatsoeuer is in his body, and presently amend: this he saith (and truly I dare beloeue him) that he proued with a Horse of his owne. But to my Swine: whereas thirst in Summer is hurtfull and dangerous to all kinde of cattell, to this beast it is most hurtfull: and therefore you must not water them as you doe Sheepe & Goates, but twise, or thrise a day: but if you can, you must keepe them
by

The third Booke,

by the water side, that they may goe thereto at pleasure: for the Swine is not content with drinkeing, but he must often cole and plunge his filthy panch in the water, neither delighteth he in any thing so much, as to wallow in the dirt. And if you haue no such place nere, you must draw some water from the Well, and giue it them in Troughs abundantly: for except they drinke their fill, they will fall sicke of the Lungs: which disease is cured (as Columella writeth) by thrusting the Rote of Setterwort through their eares: Plinie affirmeth the Tode to be a present remedie for the sicknesse of Swine. Some say, that if a Sow lose one of her eyes, she dyeth sone after; other wise she liueth sixtē yeres. There is a kinde of disease amongst Swine (though otherwise they be healthie and fatte) wherein their flesh is all infected with little graines, as bigge as Peason: the Grækes call them Galazos, and we at this day Meazled Swine, which you shall sone perceiue by the sight of the tongue, and the hoarsenesse of their voyce: this disease they say, is naturall vnto them, from which you shall preserue them, if you naye certaine plates of Lead in the bottome of their Trough. You shall also keepe them from this disease, if you giue them to drinke the Rote of Briouy: the generall and common remedie is Allome, Bimstone, and Bay-berries, of each alike: adde thereunto a handfull of Sote, beate them all together, and put them in a Bagge, which Bagge you shall cast into their water when they drinke, and renew it twice in the yere.

Meazled
Swine.

EUPH O R. I pray you Eumeus doe not dissemble, but tell vs truely how you doe to haue your Hogges so fatte, I belæue you are in the Barne sometime when you should not be:

E V M E V S. What means so euer I vse in ordering my flocke, is not to my Masters losse, no moze then is your diligence, where by you bring your cattell to be so faire. I told you befoze, that he was an vnchristie Husband, that had his Bacon from the Shambles, & not of his owne prouision: and besides, my Masters Physicians giue great commendations to Haggess flesh, in that it hath such a nereenesse and agræment with our bodics, neither is there (as I said befoze) a beast that makes moze dishes. And therefore it is greatly for profit, to haue the Husband-mans Kitchen well storied with Bacon, where with he may sustaine his household all

all the whole yere. You shall easily (though woods be wanting) finde Barnes, Marshes, and Corne-fields to feede them in. They will be fat (as Plinie supposeth) in thre score dayes, specially if they be kept from meat thre dayes befoze you feede them: they are fatted with Barley, Dates, or other Corne, or Huile, either giuen whole, or ground, but of all others, best with Mast: and that flesh is better, and of more substance that is fed with Acornes, then that which is fatted with eyther Beech mast, or Chestnut. This beast will in time be so fat, as he will be able neither to goe, nor stand. Peca Varro tells that there was scene in Arcadia a Sow so fat, that she was not onely unable to rise, but suffered a Houswife to make a nest in her body, & to lay her yong there. The same Varro reporteth, that there was sent to Volunius a Senator in Rome, a piece of Pork of two ribs that weighed thre & twenty pound: the thickenesse of which Sow from the skinne to the ribbe, was one foote and thre inches. Your best is to put to fattig your Swine of two or thre yeres old: for if they be yonger, their growing will hinder their feeding. To keepe your Bacon any long time, you must vse great diligence in the salting and drying of it, whereby you shall haue it both the wholesomer, and swæter, and besides to continue diuers yeres to serue the turne, if scarstie happen. Your Hogge being in this sort fatted, you must shut vp, and not suffer him to drinke the day befoze you kill him. whereby the flesh will be the drier. When you haue thus after his thirst killed him, you shall eyther skald him with water, or with a flame made with strawe, or stiches, syndge him: for the manner of such as slay him, I like not. After that, hanging him vp by the heeles, you shall plucke out his bowels, and put them to dressing: his flesh being colde and hard, you shall lay vpon a table, and cutting out the Head, the Gammon, and the Fleetches, powder them with Salt, thrusting great stozes thereof in euery place, specially where the bones be: that done, put it into your poudering tubbe, strowing salt enough vnder it: some would haue you salt it in the wane of the Bone. Befoze you powder it, you must presse and dry out all the bloud, and the water. Some befoze they salt it, doe plucke out the bones, thinking it the best way for preseruing it, and to keepe it longest sweet. Others againe doe not straight wayes put it into the poudering tubbe,

but

The third Booke,

but doe leaue it vpon a Table for ten daies after, and then hang it vp in a pure ayre, to dry in the larde. And when it hath bene dzyed in the winde certaine dayes, by little and little, they let the smoke come to it, and afterwards moze abundantly. The Bacon will be the swæter, if beside the smoke, the winde may come to it: if you hang it in great smoke at the first, it will be rustie. Didimus saith, that the Bacon will long continie swæte, if after the drelling, coling, and dzying, it be hanged vp in shadowy and moist places, rather toward the North, then toward the South, and that it will be swæter, if it be couer'd with snow and chaffe: the Tubbes that you powder in, must be such as haue had Dyle in, rather then those that haue had Vineger. Although I haue before spoken of the worthynesse and antiquitie of Shepherds, and Herdsmen, yet must I here say, that it is in vaine to meddle with the ordering and keeping of cattell, except you haue handsome and skilfull men that may take the charge: for the knowledge of keeping of cattell hath a discipline, wher ein a man must from his very Childe-hood be brought vp: and surely it is meete, that the husband, or Bayliffe, haue bene brought vp, or trayned in all these Trades, and to come by degrees to his Maisters prize: As from a Swineheard to a Shepheard, from a Shepheard to a Peatheard, &c. And most true it proueth in this that cometh to passe in all other governments, that such are best able to take charge of government, that passing by degrees and offices, haue from being vnder government, come to gonerne themselves: for though (where the stocke is but small, and feeding not farre off, is brought home euery day) children and young folks are able to serue the turne, yet where the stocks be great, and must bee kept night and day in Forrests, and wilde fields (as I saide before of the stocks that wintred in Appulia, and summered in the Mountaines of Kiere) here I say the Shepherds must both bee men of lustie age, strength, and diligence, as also skilfull in that belongeth to their office: for neither olde men, nor children, are able to endure the hardnesse of clyming the hilles, nor the sharpnesse of the cold Mountaines, which they must alwayes doe that follow their stocke, specially they that keepe Bullocks and Goats, that delight to lade vpon Rocks, and Claues. You shall see on the Mountaines of Swytzerland, great and goodly fellows, furnished

Of Shep-
herds.

furnished in warrelike manner to follow their Herds and Flockes, and to lodge in the wilde deserts, farre from the company of men, and there also to make both Butter and Chæse: wherefoze such as are meet to take charge in these places, must be light, swift, and well limmed, and not onely well able to follow their flockes, but if neede be to defend them from wilde and rauening beasts, to lift great burdens, to follow the chase, and to be good archers: in fine, such a one as Homer doth make his Eumeus to be. And therfoze the olde Husbandmen in hiring of a Shepheard, did alwayes couenant among others, that hee should be sound of body and limme, and free from filching and theft. In Slauny, the Heardefmen doe vse to haue their Wines abroad with them, as companions of their tourney to dresse their meate, and such things as they neede: such things as are for the health of his beasts, the shepheard must haue alwayes in a readinesse. Varro would haue him both for this purpose, and for the better order of his reckonings with his Pastur, to write and reade. Of the number of the Heardefmen, how many euery flocke ought to haue, is to be measured by the Countrie, and kind of the Cattell. The same Varro alloweth for euery fourescore Goates one shepheard, which Atticus alloweth to an hundred, to euery fittie Hares two men: in our Countrey one shepheard sufficeth for an hundred, or two hundred sheepe: yea, many times for three hundred, and aboue, specially where they bee euery day brought home. One Swineheard will keepe twenty, or thirtie Hogges, or moze, if the ground be thereafter, the like for Bullockes, and Kine. For Horses we seldome haue Heardefmen, but euery man keepeth them at home, either in Stables or Pastures, not commonly exceeding the number of twenty. In what order you shall feede your Cattell, either in Summer or in Winter, and when towards the South, and when to the West, I haue told you before.

The Dogge (though the Lawyer alloweth him not in the number of Cattell) and though he yeelds of himselfe no profit, yet is he as the shepheard, for his trustinesse, and watching of the flocke) to be esteemed and set by: for they haue bene seene to fight in the defence and quarrell of their Pastur. Yea, diuers of them haue bene knowne after their Pasturs death, vpon great affection

affection and loue, to famish themselves, whercupon the price of good Dogges grew to be very great. It is written, that Alcibiades gaue for one Dogge eightscore poundes. There is not a more necessary creature then the Dogge about Husbandry: for beside his singular faithfulness and watching in the night time, he is also a quarter master in keeping of Cattell, and very needfull for the defence of them, specially Sheepe and Goates, which would be some destroyed by Wolves, Foxes, Crayes, and other vermine, if Dogges were not set to be their keepers. Swine feeding in herds, if the wilde beastes inuade them, making as it were a larum with their grunting, and crying, assemble themselves, in their owne defence. The greater Cattell defend themselves some with their hooves, some with their Hornes, onely the poore Sheepe hath no Souldier but the Dogge. Of Dogges that serue for profit, there are but thre sorts: for the fourth (which are but for pleasure) I make no account. One of the sorts is such, as by scent, or swiftnesse, serue for the chase, and killing of wilde beastes: these, what manner of ones they should be, and how they should be ordered, Xenophon and Oppianus, in their Cynigerickes haue taught, and I in my last booke, where I shall speake of hunting, will declare.

But now I will onely speake of Dogges for the husbandes, and keepers both of the house and the Cattell: and first of the Pastie that keepeth the house: for this purpose you must procure you such a one, as hath a large and a mighty body, a great and a shrill voyce, that both with his barking hee may discover, and with his sight dismay the Thiefe, yea, being not seene, with the horrour of his voyce put him to flight. His stature must neither be long nor short, but well set, his head great, his eyes sharpe, and fiery, either browne or gray, his lippes blackish, neither turning by, nor hanging too much downe, his mouth blacke and wyde, his neather talvs fat, and coming out of it of either side a tang, appearing more outward then his other teeth, his vpper teeth even with his neather, not hanging too much over, sharpe, and hidden with his lippes, his countenance like a Lion, his breast great, and shaggyard, his shoulders broad, his legges bigge, his taile short, his feet very great, his disposition must neither be too gentle, nor too curst, that he neither salve vpon a thiefe, nor vpon

The Bandogge for the house.

upon his friends, very waking, no gadder abroad, noz lauish of his mouth, barking without cause, neither maketh it any matter though he be not swift: for he is but to fight at home, and to giue warning of the enemie.

The Dogge that is for the folde, must neither be so gaunt, noz so swift as the Grayhound, noz so fatte noz heauy as the Mastif of the house, but very strong, and able to fight and follow the chase, that hee may be able to beat away the Wolfe or other beastes, and to follow the thiefe and recover the prey, and therefore his body would rather be long then short and thicke: in all other points he must agree with the Wandog. Touching the kinde, the Dogge is thought better then the Witch, because of the trouble shee bringeth when she is sawte: howbeit, the spayd Witches doe bite sorest, & are moze waking. For their age, they must neither be whelpes, noz too olde: for the whelp can neither defend himselfe, noz the stocke, whereas yet the old hath some vse about a house. If you haue a whelp (which age is better to be trained, either for the house or the fold) you shall perceiue by the feet whether he will be great or no. His head must be great, smooth, and full of vaines, his eares great, and hanging, his ioynts long, his forelegs shorter then his hinder, but very straight and great, his clawes wide, his nailes hard, his heele neither fleshy noz too hard, the ridge of his backe not too much appearing, noz crooked, his ribs round and well knit, his shoulder pointes well distant, his buttockes fat, & broad, and in all other parts (as I sayd) of the Wandogge before. For his colour it maketh no great matter, though Varro would haue him white, and so would Columella the Dog for the field, as he would haue the House-dog to be black: but the pyed colour is iudged naught in them both. The white they commend, because he may be discerned from the Wolfe in the night, whereby they shall not strike the Dogge in stead of the Wolfe. The blacke againe, for the house is best commended, because of his terrour to the thiefe in the day, and the hurt that he may do by night, by reason of his not being scene: the dunne, the bzanded, & the red, do not mislike me, so they be well marked beside. Thus must you iudging him as a Lyon, by the claw, eyther buy one, or bring vp one for your purpose. How much teaching or bringing vp preuaileth, appeareth by Lycurgus his example in Xenophon.

The
Shepherds
Masty.

The third Booke,

To make them fierce & curst, you must plucke them by the eares, set them together with your handes, and keepe them from being hurt, so shall you haue them the bolder and the fiercer, and such as will neuer giue it ouer. You must vse him first to the chaine, by tying him to a clogge, letting him dzawe it a while by his necke, and when you haue a little spase bled him in this sort, then may you eyther lead him or tie him: it is best to keepe them tyed in the day time, to make them the curster, and to let them loose in the night time: so shall they in the night time watch, and in the day sleepe. To arme them against the Wolfe, or other wilde beastes, you may put broade colloz about their Peckes full of Nailles, and iron studdes, lining it with soft leather within. You must looke that your Dogges be of a good kinde, and (if you can) all of one kinde, so shall they sticke the better together: choose them that haue the curstest Damines, and such as haue their Pappes euen. They begin to litter at a yere old, and continue nine yeres, after tenne they be worth nothing.

The Dogge (as Columella saith) gettes Whelpes lustily, till he be tenne yeres olde: the whelpes of the olde Curres are slow and naught. Homer seemeth to make the life of a Dogge about twenty yeres, where he speaketh of the comynge home of Vlisses, and the knowledge of his Dogge: And I my selfe haue seene Dogs that were said to be so much, but altogether vnprofitable. Their age may be knowen by their teeth, the young hauing (as Aristotle saith) white teeth and sharpe: the olde, blacke and blunt. In the Spring they begin to be salute, and goe with Whelpes (as Aristotle and Xenophon saith) threescore dayes, or at the most threescore and thre. Varro writeth, that they goe thre moneths with young: the Dogs of Lacedemon ingender at right moneths olde, and all other Dogges also at halfe a yere: they are with whelpes at once limping: they litter about June: when they be littered, they are blinde, and the more milke they haue, the longer it is before they see, but neuer longer then one and twenty dayes, nor sooner then seauen dayes. Some holde opinion, that if there bee but one at a litter it will see the ninth day, if two the tenth day, and so a day added for as many as be, and that those that be of the first litter, doe soonest see: the best of the litter is that which last seeth, or which the Bitch first carrieth to her Kennell.

As soone as they be whelped, cast away such as you miſlike : of ſeauen, keepe thre or foure : of thre, two : while they be young, at the firſt they muſt be ſuffered to play with the damme, that they may grow the better, afterward, let them be taught, and tied (as I tolde you) tying them in the day, and letting them loſe in the night, and ſuch as you know to be of a good kinde, and would haue them proue well, ſuffer them not to ſucke a ſtrange damme: for the milke and bloud of the mother is of great force to the goodneſſe and growth of the Whelpes. And if ſo be the Bitch lacke milke, ſuckle them with the milke of a Goate, till they be foure moneths olde. Lay vnderneath them in their Kennels Straw and Chaffe, that they may lye warme: for they cannot well away with cold. You muſt cut the tailles of the Whelpes when they be ſire wēkes old, in this maner, there is a ſinew that runnes from the ridge of the backe, to the tip of the taile, which being held faſt with a pincer, & a little drawne out, you ſhall cut aſunder, where by neither the taile ſhall grow to any foule length, nor the Dog ſhall at any time after (as they ſay) be mad. They are thought to liſt vp the legges when they piſſe, at ſire moneths olde, which is a ſigne of the perfectneſſe of their ſtrength. The ſeeding of both kindes is all one, they may be fed with bones, porredge, and ſuch like: in any wiſe let them want no meat, for if they doe, they will for hunger rauen abroad, and forſake both the houſe and the ſlocke. Xenophon would haue you giue them milke all the yere long, and ſuch food as they ſhall feede with all their life time, and no other thing : if you feed them too full, it will breed (as he ſaith) diſeaſes in their legges, and rot them within. Bread is their common meat, but Varro would haue it giuen eyther with Milke or Hay, by vſe whereof, they will neuer forſake their Cattell. You may giue them beſide, bread, with the broth of ſodden bones, and the bones themſelues brooſed, which will make their teeth the ſounder, and their mouthes and iawes wider, and they will be the kener, by reaſon of the ſweetneſſe of the Parrowe. You muſt beware they eate no dead Sheepe, leſt by reaſon of the taſt, they fall to the liue ones. While the Bitch hath Whelpes, you muſt feed her rather with Barley bread then wheaten bread : for they prosper better with it, and makes them giue more milke. You muſt feede them thiſe a day, in the morning when you tie them

The third Booke,

Fit names
of Dogs.

by, at none, and againe at night, when you let them loose. Their names that you giue them, must be short, that they may sone heare when they be called. The Grækes, and the Latines, gaue them names of two sillables, the Germanes lightly but one sillable, as Ball, Slut, Patch, Grim, &c. Although Columella would not haue their names vnder two sillables, shewing for example the names of Dogges among the Grækes, and the Latines, as *κύβελος, εῶμι, αλκι, λάκωνς*, and Lupa, Tigris, Cerua: Xenophon reckoneth by thousands, all for the most part of two sillables. The diseases and grieuances of Dogges, are the biting of Flies, Ticks, and Manginelle. Against this you must wash them when they be Whelpes, with bitter Almonds, stamped and strained with water, washing them both about their Eares, and betwixt their Clawes, that neither Flies sticke to them and biter them, nor Ticks, or Lice molest them: and if they be already mangie, you must annoint them with Tarre, and Dogges grease: the Ticks also, if you touch them with this medicine, will presently fall off, for you must not plucke them off by force. If your Dogge be full of Fleas, the remedy is Cummin beaten, with a like quantitie of naxing powder, and mingled with water, rub him ouer with it, or the olde dregs of Dyle rubbed ouer all his bodie. If he be scabby, take Cythilus, and Celsamum, beate them together, and mingling them with Tarre, annoint the soze: this medicine will also remedie a Christian creature. They say also, that if you thrust the skin through with an iron, it will heale the manginelle, or if you smeaue them ouer with Gunnea powder, or cast them into a Tanner's fatte.

Aristotle writeth, that Dogges are chiefly troubled with three diseases, Madnesse, Quinsiey, and the Sout, and whatsoeuer he byteth in his madnesse, becommeth also mad, and dieth thereof: the madnesse is most extreame in the Dogge dayes: whatsoeuer is bitten by them, falleth straightwayes into a loathing, and feare of Water. To preserue them from it, you must mingle with their meate for thirtie dayes together, or if they be already infected, giue them naxing powder to eate. Plinie writeth, that there is in the tongue of Dogges a little woyme, called of the Grækes *Lyrta*, which if it be taken out while they be Whelpes, they will neither be madde, nor greedy, nor rauencous. If the
Dogge.

Dogge be madde, he refuseth both meate and drinke, and driueth ill favoured somie matter, both from his nose, and mouth, hee looketh with a loathsome countenance, his body is leane, and more clong together then it was wont to be, he beareth his taile betwixt his legges, and biteth without any barking whatsoeuer he meetes, falling as well vpon men, as beasts, making no difference betwixt his friendes, and strangers. As the Dogge is a watchman and keeper of the house and the flocke, so the Cat is a household seruant to be cherished.

Madde
Dogges.

The Egyptians for their profitablenesse, did worship for their God a golden Cat, for whereas Kats and Mice, as well in Cities, as in Tranges, are greatly hurtfull, we keepe by Cattes for the auoyding of the mischief, neither is there a speedier remedy. The Catte is a beast of nature enemy to the House, watching in the night, and sleeping in the day, stealing suddenly and swiftly vpon the House: shee saith better by night then by day (as Alexander Aphrodiscus writeth) her eyes shine and glister in the darke. They goe a Catter walling about February, or other times in the yere (for they often ingender) and bring forth their young ones blinde, as the Bitch doth. Herodotus saith, that after the Catte hath kitted, shee comueth no more at the Bucke, which when hee perceiueth, and cannot haue his purpose, he killeth the young, whereof when shee seeth her selfe bereft, for very desire of young (whereof this kinde is most desirous) shee commeth straight to the Bucke. For my part, I would rather counsell you to destroy your Kats and Mice with Traps, Banes or Warrels: for besides the stuttishnesse and loathsomnesse of the Catte (you know what she layes in the Malt heape) she is most dangerous and pernicious among children, as I my selfe haue had good experience.

Cattes.

Soli Deo honor & gloria.

The end of the third Booke.



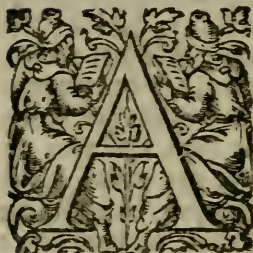
The fourth Booke.

Entreating of Poultrie, Fowle, Fish, and Bees.

PVLLARIVS.
MELLISSEVS.

CHENOBOSCVS.
PISCINARIVS.

PVLLA.



Skéeping and bréeding of Cattell, doth yéeld no small commoditie and gaines to the husbandman, so the nourishing and maintenance of Poultrie, Fowle, Bées, and Fish (if the Countrie be for it) doth commonly arise to his great advantage, whereby both the reuenue is greatly encreased, and the table daily with daintie, and no chargeable dishes furnished. Cages, and houses for Birds, wherein were kept all manner and sorts of Fowle, were first deuised by Paster Lelius Strabo at Brundisium, from which time it was first put in vse, to pen by such creatures, as naturally were accustomed to lie at their libertie in the ayre. At which time also began to be brought in strange and outlandish Fowles, the kéeping and bréeding whereof, yéeldeth to the husbandman both pleasure and profit. We haue here brought in Pullarius, Chenoboscus, Mellisseus, and Piscinarius, euery one of them severally entreating of such things as belongeth to his charge.

MELLISSEVS. I see you haue háere (Pullarius) great store of Fowle, and Poultrie, and I beléue verily, the profit and commoditie of them will not quite halfe the charges they put you to.

PVLLARIVS. Yes verily, they quite our cost, whether we

wee sell them, or keepe them for the kitchen. It is sayd, that Auidius Lurco made pyerely of his Poultrye, and fowle, five hundred pound.

MELLISSEVS. But I doe a great deale better like the common Poultrye, that we keepe about our houses.

PVLLARIVS. We haue also of the same here at home with vs.

MEL. Then let me vnderstand (I pray) in what order you keepe them, for herein you seeme to be most skillfull.

PVLLAR. It is meet that euery one be skillfull in that trade that he professeth. If you will, I will not refuse to shew you that little cunning that I haue: so you on the other side vouchsafe to shew me the ordering of your Bees.

MELLISSEVS. I will not ticke with you for that, to tell you the best I can.

PVLLARIVS. Well then, with a good will I declare vnto you my knowledge, beginning first with those kindes that are most in vse: for amongst all other household Poultrye, the chiefe place is due to the Cocke and the Henne, that are beside so common, as the poorest widdow in the Countrie is able to keepe them. In this Bird there are three points of naturall affection chiefly to be wondered at. The first, the great carefulnesse that they haue during the time of their sitting, wherein for the desire of hatching their young, they seeme to be carelesse of either meate or drinke. Secondly, that they beare such loue to them, that they ticke not to hazard their owne liues in the defence of them. And thirdly, that in the stozme, great colde, or sickenesse, they preferue and nourish them vnder their winges, not making for the while any account of their owne selues. There is her eof a sweet comparison in the Gospell, wherein our Sauour Christ compareth himselfe to the Henne that gathereth her Chickens vnder her winges. And therefore, since these are common for euery man to haue, and that they alwayes scode about the house, I thinke it best to begin with them, and to tell you which are best to be liked, which to be brought vp, and which to be fatted.

First, the best to be bought for broode, are the dunne, the redde, the yellow, and the blacke, the white are not to be medled with, because they are commonly tender, and prosper not, neither

The
choise of
Hennes
for brood.

are

are they beside fruitfull, and are alwayes the fairest marke in a Halowe, or a Bullards eye. Let therefore your Henne be of a good colour, hauing a large body, and best, a great head, with a straight, redde, and dubble combe, white eares and great, her tallons cuen. The best kinde (as Columella saith) are such as haue five clawes, so that they be free from spurres: for such as weare those Cockish weapons are not good for broede, and disdaine the company of the Cocke, and lay but seldome, and when they sit, with their unruly spurres they breake their Egges. The little Pullets, or Hennes, though the olde age, both for their vnfruitfulness, and other causes disalowed them, yet in many places they proue to be good, and lay many Egges. In England, at this day, they are vled as a daintie dish at mens tables.

The
choise of
Cockes.

In the choise of your Cockes, you must prouide such as will treade lustily, of colours, as I told you for the Hennes, and the like number of tallons, and like in many other points, but of stature they must be higher, carrying their heades straight vp, their Combes must be ruddy and high, not hanging, nor falling downe, their eyes blacke and sharpe, their Bills short and crooked, their eares great and white, their wattels orzent, hauing vnder them as it were, a kinde of grayish beard, the Weake feathers of colours diuers, either a pale, golden, or a glittering greene, which must hang rustling from his Pecke to his shoulders, their Beaks must be large, and well brazned, their Wings well feathered and large, their Tailles dubbed and flagging, their rumpes and thighs full of feathers, their legs strong, well armed with sharpe and deadly Spurres: Their disposition (for you shall not neede to haue them great fighters) would be gentle, quicke, and liuely, and specially good makers, and crowsers: for it is a Byrd that well apozioneth both the night and the day, and (as Prudentius witnesseth) exhorteth to repentance. Neither must you on the other side, haue him a Craddon, for he must sometime stand in the desence of his wife, and his children, and haue stomacke to kill or beat away a Snake, or any such hurtfull vermine: but if he be quarrellous, you shall haue no rule with him for fighting and beating his fellows, not suffering them to treade, though he haue more then his hands full himselfe. This mischiefe you may easily prouent with shackling him with a shewe sole: for although such lusty
fighters

fighters are bredde vp and cherished for the game, yet are they not to serue the Husbandmans turne at home. A Cocke framed and proportioned after this sort, shall haue five or six Hennes going with him.

MELLISSEVS. I pray you let me vnderstand what time of the yere is best for bringing forth of Chickens ?

PVLLARIVS. In some places, specially the hottest Countries, the Hennes beginne to lay in January, in colder Countries, eyther in February, or at the latter end of January: you must also further their laying, by giuing them meates for the purpose, as Barley halfe sodde, which maketh both the Egges the fayer, and causeth them to lay the oftner. Some thinke it good to mingle therewith the leaues, or the seedes of Cirus, which both are thought to be greatly of force in making them fruitfull. If this be not to be had, you may supply the want with Spery, or (as Cardanus saith) with Hempesæde, which will cause them to lay all the Winter.

When they lay, you must see that their nests be cleane, and kept still with fresh cleane straw: for otherwise they will be full of fleas, and other vermine, which will not suffer the Henne to be quiet, whereby the Egges doe not hatch euen together, or many times ware addle and rotten: The Eggs that you set vnder them, must be new layd, howbeit, so they be not aboue tenne dayes olde, if maketh no great matter: if you looke not to them they will straight wayes sit after their first laying, which you must not suffer, for the young Bullets are better for laying then sitting: the desire of sitting is restrained by thrusting a feather through their nose. The old Hennes must rather be suffered to sit then the younger, because of their experience. Herein must you haue a speciall regard to know which be best to sit, for some be better to bring vp Chickens then to sit. Others againe, will breake or eate vp both their owne Egges, and their fellows Egges: such you must put aside, and if their spalles and Billes be sharpe, rather imploy them in brooding then in sitting. Democritus telleth, that Chickens may be brought forth without setting vnder the Henne, if so be the dung of Hennes sifted very fine, bee put in little bagges, basted about with soft feathers, vpon which the Egges must be laid straight vpright with

The fourth Booke,

With the Sharpe end vprward : vpon these againe must the like quantitie of Hennes dounge be laid, so that they be of euery side closely covered. This done, you must suffer them to lie for the two or thre first daies, and after, euery day turne them, taking god heed, that you knocke them not one against the other in the turning. After twenty dayes, you shall finde the Egges broken: and therefore the twentieth day, plucking away the shels, and taking out the Chickin, you may commit them to the Henne. It is written, that Chickens haue bene hatched by the continuall warmth of a womans bosome: beside, it hath bene scene that Egges being laid in an Duen, or a warme place, covered well with strawe and chaffe, hauing a little fire beside, and one to turne them continually, haue disclosed and broken at their accustomed time. Aristotle writeth, that Egges put in warme vessels, or covered with dounge, will hatch of themselues. The number of the Egges that your Henne shall sit vpon, some would haue to be odde, and not alwaies alike, but in Januarie, and February sixteene, and no more, in March nineteene, and no lesse: which number you shall continue all the Summer, till September, or October, after which time it is to no purpose to bræde any longer: for the Chickins, by reason of the colde weather, and diseases, neuer prosper. Vea, some be of opinion, that after the tenth, or twelfth of June, you shall neuer haue faire broode, and that the best season for setting, beginneth at the tenth of March. And hercin you must alwayes be sure to haue the Wone encreasing, from that she be tenne dayes old, till sixteene: for that is the best time to set in. And so must you againe dispose the time, as the hatching may fall out in the encrease of the Wone: for the iust time of hatching, there are sundry opinions: Aristotle writeth, that they are hatched in nineteene dayes, Varro (for Chickins) one and twentie daies, or twentie dayes: for Peacocks, and Geese, seauen and twentie dayes, and sometimes more: Duckes, in the like space to the Henne, specially if they sit night and day, allowing them onely the Morning, and the Evening to feede: which times they must of necessitie haue. If so be you will set vnder your Henne Peacocks Egges with her owne, you must set her vpon the Peacocks Egges ten daies before she haue her owne Egges, whereby they shall be hatched all at once, neither must you set aboue
finc

five Peacockes, or Gole Egges vnder a Henne. If you would haue all Cocke Chickins, you must chouse such Egges as be longest and sharpest, as againe (for Hennes) the roundest, (as both Plinie and Columella write) though Aristotle saeme not of that opinion. To vnderstand which be good Egges, which not, you must (as Varro teachet;) put them in water, and such as be nought will swim aloft, and the good goe straight to the bottoime. Others doe hold them vp against a Candle, and if they see through them, they iudge them light and nought. You must in no wise shake them, or shogge them, least you breake the strings of life, that are but newly begun: it hath bene scene, that by shaking of the Eggs, the Chickins haue bene hatched lame. We may beside perceiue whether the Egges will proue well or no, if foure daies after the Henne haue sitten; you hold them vp in the Sunne, or other light, and if you see that they be cleere, cast them away, and put other in their places. Against thunder, that many times marreth the Egges, some doe set about them the Leaues, or Branches of Bayes, or Ventes, or Grasse, others (againe) the heads of Garlick, and Pailes of yron. In the great heat of the Summer, you must now and then sprinckle the Egges a little with water, and wet them, least by the extreame heat they ware drie and adle, specially the Eggs of Turkies and Hennes. Whensoeuer you meane to make cleane their nests, you must take vp the Egges, and lay them tenderly in some little Basket, & so lay them speedily againe in the cleane nest: nere to the place where the Hen sits, you must set water, & meat, that they may the better keepe their nests, and that by their long absence the Egges ware not cold. And although the Henne doth alwaies turne her Egges, yet it beho^ueth you when she is from the nest, to turne them softly with your hands, that by receiuing a like warmth, they may the s^ooner be readie. And if she haue happered to burst any of them with her feete, you must presently remoue them: At the ninetenth day, you must looke diligently whether the Chickins do iobbe the shell with their bills, and hearken whether they peepe: for many times by reason of the hardnesse of the shell they cannot come forth, and therefore you must helpe them out with your hands, and put them to the Henne, and this you must doe no longer then thre daies: for the Egges that after one and twentie

To haue
Cocke
Chickins,
or Henne-
Chickins.

Against
hurt of
thunder.

daies.

daies make a noise, haue nothing in them, and therefore you must cast them away, that the Henne lose not her labour. Upon the twentieth day, if you stirre the Egges, you shall heare the Chickin, from that time begin the Feathers, the Chickin lying so, as the head resteth vpon the right foote, and the right wing lieth vpon the head, the yolke vanishing by little and little. You must not take the Chickins away as they be hatcht, but suffer them to remaine one whole day with the Henne in the Nest without meate or drinke, till such time as they be all hatcht. It is wonderfull, & yet the experience sheweth, that before they be suffered to eate, they take no harme, though they fall from a great height. The next day, when all the stocke is come forth, Columella would haue you to put them vnder a Siue, and to perfume them with the smoke of Veneriall, or to hang them in a Basket in the smoke, which preserueth them (as it is thought) from the pippe, which many times destroyeth the poore Chickin: then must you put them into a Cope with the Henne, and feede them at the first with Barley-meale, sodden in water, and sprinkled with a little Wine. Afterwards, when they goe abroad, you must seele euery one of them whether there remaine any of the meate they receiued the day before: for if their cropes be not emptye, it betokeneth want of digestion, and therefore you must keepe them fasting till all be digested. You must not suffer them to go farre from the Henne, but to keepe them about the Cope, and to feed them till they waxe strong with brused Barly, and Barly meale: you must also take good hede, that they be not breathed vpon, by epyther Toad, Snake, or Cuck, for the Ayze of such is so pestilent, as it by & by destroyeth them all: which mischief is auoided by burning of Harts horne, Galbanum, or Womans haire, the smoke of all which preuenteth this pestilence. You must see beside that they lie warme: for they neither can suffer cold, nor too much heat: the feathers about their tailes must be pulled away, least with the hardning of their dung, the passage be stopped, which if it be, you must open softly with a little quill: you must keepe them with the Henne for a moneths space, and after suffer them to go at liberty. Both the old and young, are of all other diseases most troubled with the pippe, specially about Haruest time, which is a little white skin, couering the tipps of their tongue, which is to

Against
the pippe.

be plucked away with the nailes, and the place to be pouzred with Ashes, or Garlike pouzred & sprinkled vpon it. From this plague you sh'ill preserue them, by soddening them in cleane vessels, and giuing them alwaies the purest, & cleannest water, and keeping their houses alwaies cleane, and smoked, or by smoking them, as they sit, with the smoke chiefly of Bayes, and Sauin. The wines of the countrie do commonly cure them, by thrusting a feather through their nose, and stirring it euery day: their diet must be Yeerbe-grace wrapt in Butter or Garlike, mingled with Beale or Water, or Clones of Garlike wet in warme Sallet-oyle, and put into their mouthes. Some (saith Columella) doe vse to wash their mouthes with pisse, and keepe their bills so long close, as the Salt and bitter taste force them to cast at their Nose the spring of the disease. Others againe do cut Garlick in gobbets, and putting them in skalding Oyle, after it is cold; doe wash their mouthes. If they happen to cate Lupines, they will straight swell vnder the eyes, which if you doe not gently open, and take out the Coze, it presently killeth them. And if so be the Pippe haue new closed by their eyes, and that they forsake their meate, you must launch their Cheekes with a sharpe knife, and thrust out the water that lieth vnder the eies, and put into the wound Salt finely beaten: this happeneth chiefly when in the Summer time they drinke soule water, and also when they want meat, or take cold. If their eies be sore, you may heale them with the iuice of Purcellane, and Womens-milke, annointing on the outside, or with Cummin, Hony, and Salt Armaniacke. You shall rid them of Lice, with parched Cummin, and Stauesacre, a like quantitie of each beaten together, and pouzred on with Wine: also the water wherein wilde Lupines haue bene sodden. If your Henne fall to eating of her Egges, taking out the white, you must pouzre in Plaster, of some liquid thing, that may come to a hardnesse in the shell. To keepe them from eating of Grapes, you shall giue them the Berteie of the wood called the wilde-Tine gathered from the hedge before it be ripe, and sodden with Wheat flower, the euill taste whereof will cause them to loath Grapes. Plinie affirmeth, that if you giue them the flowers of the Tine with their meate, they will not touch the Grape. As in all other cattell of the countrie, so in these kindes the best are to be kept, and the

The fourth Booke,

Choyse of Poultrie. wozk either to be sold, or to be killed in the house. And therefore euery yere about the fall of the lease, when they cease to breede, you shall lessen their number, and put away the old ones. Such as are about thre yeres, and such as are either vnfruitfull, or not good bringers vp of Chickins, but specially those that eate vp either their owne Egges, or their fellows, or such as after the Cockish manner either crow or tread: to which number you shal also adde, such as were hatched after the tenth of June, which neuer proue to be sayze: but the Cocke, as long as he is able to tread, you may keepe: for you shall seldome maete with a good Cocke. For fatting, the best, those that haue the skinnes of their necks thicke and fattish. The place where you meane to fat them must be very warme, & of little light, because, as both Varro, and our owne experience sheweth, the light, and their often stirring, keepeth them from being fatte: thus must they be kept for foue and twentie dayes, wherein they will be fatte. Let them hang euery one in his Basket, or Cage by himselfe, which must haue in it two holes, one to thrust out his necke at, the other to cast out his dung, that hee may discharge himselfe, and let them bee strawed either with straw, or course hay: for the harder they lie, the sooner they fatte. Pull away besides, their feathers from their heads, their wings, and their tayles, the one for auoyding of Lice, the other for binding their bodics. The meate that you giue them, must be Barley meale, which mingled with water, must be made in litle pellets, wherewith they will be fat (as some thinke) in fouretene dayes: but see that you giue it them but moderately at the first, till they well digest it, after giue it them in quantitie, according as they digest it: and in any wise giue them no new, till you perceiue, by feeling of their Croppes, that the olde be endelued. Others doe sprinckle their Meate with Honey sodden in water, putting to thre parts of water, one of Honey, and one of Wine, and wetting herein wheaten bread, they therewithall doe cramme them. Others say, that if you put herunto a little Milke, they will be wonderfull fatte. The Cockrels are gelded (as Aristotle saith) in the hinder part, which when they tread, falleth out: this part, if you burne two or thre times, they will bee Capons. And if they be right Capons, their Combs becommeth pale, neither crowing, noz treading any moze.

Dur

Our Wiues of the Countrey, casting them betwixt the legges, take out their stones, and solwing by the wound, annoint it with Butter; which done, they shut them vp in a Cope, not suffering them to drinke in a day oz two. From the beginning of Haruest, and all Winter long, the offall of the Cozne, and the Barnes doze doth feede them sufficiently: where they plant Vines, sparing other moze costly fodes, they feede them with the kernells of the Grapes: and where there is neither the offail of Cozne, nor Grapes, they must be fedde with Dates, Sperry, oz such like. To cause them to lay in Winter, you must giue them (as I told you) Hempseede.

If you would haue great Egges, Leoncus teacheth to beate into powder Bricke, oz Flaunders Tile, and mingling it with Chese and Wine, to make it in Dow, and giue it to your Henne, in to put a Saucerfull of the powder of the Bricke, to a Gallon of Branne, and to feede them with it. The Egges of Pigeons, Geese, Peacocks, and Turkeys, be all white: the Egges of Water Fowle be greenish, and pale: the Ginnie Hennes Egges be like the Pehennes in all things, sauing that they be speckled as the Turkie Hens. The Pheasants, and the Kastrils Egges, are reddish. The Egges of all Fowles (as Plinie saith) are of two colours, wherein the Water Fowles Egges, hauing a great deale moze yolke then white, and that moze blacke then others. The Egges of Fishes, are all of one colour, hauing no white in them. The Egges of Birds are by reason of their heate, brittle: and Serpents Egges, by reason of their coldnesse, tough: Fishes, by meanes of their moysture, soft in laying, the round part of the Egge commeth first out, the Shell being soft, and presently after hard: what forme soeuer they haue, the long are most commended, as witnesseth the Poet. The Egge in fashion framed long, and of them (as I said befoze) is brought forth the Cocke Chicken, as of the round ones the Henne, though Aristotle be against it. Some Hens doe lay very great Egges, and those most times with two yolkes, hauing the shell deuided as it were with a circle, which both Aristotle writeth, and our experience approueth. Some doe lay double, and hatch double: some are so fruitfull, as they lay great numbers at once, some euery day, some twice a day: some are so fruitfull as they kill

The fourth Booke,

themselues with laying. In the middell of all Egges, there lyeth as it were, a droppe of bloud, which is supposed to be the heart of the Bird, which is the first in all the body framed: the body it selfe is wrought of the white: the sustenance is the yolke: the head, while it is in the shell, is bigger then all the body, the eyes shut by more then the head. While the Chickin increaseth, the white goeth to the midst, and the yolke compacteth round about. The twentieth day (as I said before) if you stirre the Egge, you shall heare the Chickin, from which time the feathers come forth, lying so, as the head resteth vpon the right foot, and the right wing couereth the head. The adle Egges are thought to come of the vaine lust and treading of the Hennes together: some suppose them to be bredde of the winde, and therefore call them Winde Egges, as Aristotle before Plinie hath written. Egges are preserued in Winter, if you keepe them in Chaffe, Strawe, or Leanes: and in Summer, if you couer them with Branne, or Wheate. Some doe couer them before in fine beaten Salt, for the space of sixe houres, and after wash them and lay them in Chaffe, Strawe, or Branne. Others againe couer them in Beanes, and some in Beane flowre, and some in heapes of Salt: but Salt, as it suffereth not the Egges to corrupt, so it greatly diminisheth the substance of them. Your Hen Houses must be made in that part of the House, as lyeth in the Winter toward the rising of the Sunne, and ioyning as nere as may be to some Hill, Ducn, or Chimney, or to the Kitchen, so as the smoke may come amongst them: for smoke is very wholsome for this kinde of Fowle. And that was (I thinke) the cause that the old people made choise in their quitrents of smoke Hennes, as of the best, as it appeareth by old Kentalles. Let the front of your Henne house stand alwayes towards the East, and to that Coast let the doore open. Let the inner rooms be well furnished with Lotts, and Ladders, and small Windowes opening Eastward, at which your Poultrie may fly out in the morning, and come into the Rost at night. Loke that you make them close at night, and let the Windowes be well letteised for feare of Vermine. Let your nests and lodgings, both for laying and brooding, be orderly cast: and against euerie nest and roosting place, place steppinges and bordes to come by by, making them as rough as
may

may be, that the Hennes may take good hold when they fly by to them, and not by their over-smoothnesse, be forced to flutter, and hurt their Egges. It shall not be amisse, if you parget the house both within and without with good Plaster, whereby neither Moxell, nor other hurtfull Termeine may enter in. Wounded Floures are not so fowle to roost vpon, which almost all kinde of Birds refuse, because of the hurt that they receive by their dung, which if it cleave to their sexe, breedeth the Gout. And therefore to rooste vpon, you must make them Pearches, which Columella would, should be made soure-square: but it is better to haue them round, so that they be not too smothe for them to take hold by. Let the Pearches reach from one side of the wall to the other, so as they stand from the Floure a fote in height, and two fote in distance one from the other: and thus haue you the fashion of your Henne House. The Court where they goe, must be cleane from dung and dirtinesse, not hauing water in it, sauing in one place, and that must be verie sayre and cleane: for if it be puddle, or durtie, it breedeth (as I sayd before) the Pippe. To keepe their water cleane, you may haue sayre Earthen or Stone Vessels, or Troughs of wood, couered on the toppe, in the which, there must be seuerall holes, so bigge, as the head of the Fowle may easilie enter: for if you should not keepe them thus couered, the Poultrie would in their drinking defile and popson it with their dung. Their meate must be giuen them betimes in the morning for straying abroad, and a little before night, that they may come the timelier to their rest. Those that be in the Cope, must (as Columella saith) bee fedde thysie in the day: the others must be vled to an acquainted voyce, that they may come at the calling. The number must bee well marked: for they sone deceiue their keeper. Beside, you must haue round about by the walles, good plentie of dust, where in they may bathe and proync themselves: for as the Swine delighteth to wallow in durt, so doth this kinde to bathe and tumble in the dust. And this is (I thinke) almost all that is to be said of Bullein.

MELLISSEVS. Yea, but wee must heare something also touching the other sorts of Fowle, that are kept about the house, which peradventure Chenoboscus can instruct vs of.

The fourth Booke,

CHENOBOSCVS. And if you will needes haue me, I will not refuse to shew you somewhat also of my feathered cattell.

MELLISSEVS. I pray you doe so.

Of Geese. CHENOBOSCVS. Amongst the Fowle that we keepe about our houses in the Countrey, the second place of right is due to the Goose and the Ducke, which are of the number of those that they call Amphibia, because they liue as well vpon the land, as the water. And because the keeping of Geese requires no great labour, it is a thing not vnnecessary for the Husbandman, for that (if hee haue place commodious for it) it is done without any charges, and yieldeth good aduantage both with their broode and feathers: for beside the profit of their Eggs, you may likewise in the yeere, at the Spring, and the fall of the lease pull them. Moreover, they are a very good dish for the Table: yea, being more watchfull then the Dogges, they giue warning when they sleepe. And therefore they were with the Romanes had in great honour, because they with their gagging bewrayed the enemy, that otherwise in the night time had taken the Towne. Plinie writeth of a Goose that would neuer be from the Philosopher Lacydes. Your choyse must be of those that be of the fairest kinde: Varro liketh best the white ones, which colour was most esteemed in the olde time, as appeareth by the presents that were giuen: the same Varro accounteth the gray for a wilde kinde. They are kept in Marshes, Fennes, Lakes, and Moorish Commons: for to Co:ne ground, Heddoles, and Pastures, it is a very hurtfull Fowle: she biteth whatsoeuer young Spring she may reach, and what she once hath bitten, doth neuer lightly prosper againe: besides, she stencheth the ground with her vnprofitable, or rather most hurtfull dunging: wherefore (as I said) it is best to keepe them in Fennes, Lakes, and Marshes. If you haue store of such ground, you shall doe well to keepe them: for you cannot well keepe them without good store of water and pasture. The Goose delighteth in such meat as is naturally moist & cold, and shunneth naturally such things as are hurtfull for her, as the lease of the Bay, and (as Alianus writeth) the Oleander: the best and meetest time for them to broode in, is from the Kalends of March, to the tenth of June. They tread most commonly in the water, while they swim in the Kiners, or Fish-ponds. Columella would haue you

you keepe for euery Gander, threë Geese, thinking by reason of their vnweldinesse, this number to suffice: within your Court, you must make them for their better safetie, seuerall, and secret pennes, in sundry parts thereof, where they may sit and broede. Some would haue the Goose-rome framed in such order, as euery Goose may haue a place to her selfe: which, if any man thinke too troublesome, he may make one sufficient wide roome to serue them all. The places where they shall lay, must be drie, and well strawed with straw, or such soft matter, and well defended from Vermine. The Goose must not be suffered to lay out of her nest, but when you shall perceiue they seeke it, you must grope them, and if they be with Egge, which you shall easilie seele, then shut them vp in their nests, which you shall not neede to doe a boue once, or twise: for where she hath once layd, she will alwaies of her selfe seeke to be. They will lay (as some hold opinion) thise in the yere, if they be not suffered to sit, as it is best you doe not: for their Egges are better to be hatched vnder a Henne, then of themselues, and will better a great deale prosper. The Egges of Geese, and Swannes, were vsed (as Alianus witnesseth) as a most daintie dish at Bankets, among the Kings and Princes of the Indies. Aristotle affirmeth, that the Goose alwaies vseth to sit, and neuer the Gander, contrarie to the order of many other Fowles, continuing alwaies till she haue hatched. After the last laying, you shall suffer them to sit, and marke euery ones Egges with a seuerall marke, that they may be set vnder their owne Goose, for it is thought they will neuer hatch a strangers Egges, without shee haue her owne vnder her. Of Goose Egges, as of Hennes Egges, you shall (as I said before) neuer set vnder a Henne a boue fise, nor vnder threë: but vnder the Goose you shall set at the least seauen, and at the most fiftene. You must keepe to lay vnder your Egges, the rofes of Pettles, which they say preserueth them against the stinging of Pettles, which otherwise many times killeth the Gosling, if they sting them. The Egges will not be hatched if the weather be colde, before the thirtieth day, if it be warme, in lesser time: howbeit for the most part, the Gosling is hatched the thirtieth day after the sitting. Some doe vse to set by the nests Barley steeped in water, or Vault, whereby the Goose shall not be forced to be any while absent from

The fourth Booke,

her Egges. When your Gozlings are come forth, you shall for the first ten dayes feede them with the Gose in the nest. Afterwards, when the weather is faire, you may suffer them to goe abroad, taking good heede that they be not stinged with Nettles, nor that you let them goe an hungred into the pastures: but to giue them after they goe abroad the leaues of Endiue, or Lettuse chopt, to asswage their hunger: for if you put them an hungred into the field, they straine and breake their owne necks, with pulling at the tough and stubborne weedes, by reason of the sudden starting backe againe of the weede. The Gozlings of diuers breeds must not goe together, nor be shut vp together, for hurting one another. When they be foure Moneths old, or some what before, is best time for fattening them: the youngest are soonest, and easielliest fatted. If you giue them ground Vault, and Wheate flour, you neede giue them nothing else, so you let them haue drinke enough, and keepe them from going abroad. The Greakes did vse to put to two parts of ground Vault, foure parts of Bran, tempzing it with water, letting them drinke thise a day, and at midnight. If you would haue their Livers soft and tender, you shall mingle dry Figs, well beaten with water, and making pellets thereof, cram them with it for the space of seuentene or twentie daies. The Jewes at this day, being the skilfullest feeders that be, doe vse a strange order in the fattening of them, wrapping the Gose in a Linnen Apron, they hang her vp in a darke place, stopping her eares with Beason, or some other thing, that by neither hearing, nor seeing of any thing, she be not forced to struggle, nor cry: after they giue her pellets of ground Vault, or Barley steeped in water, thise a day, setting by them water and grauell, by which manner of feeding they make them so fatte, as the Liver many times cometh to be five pound in waight. Whilst I was at the Councell of Wormes, there was a Liver of a Gose brought me by a Jew, that waighed foure pound. Plinie is also a witness of the greatnesse of the Livers of fat Gese, affirming, that they will grow after they be out of the bodies, being sprinkled with milke. The common order of fattening with our Countrey people, is to shutte them vp in a darke, and a narrow place, and to set before them Barley, or Bech wheate, giuing them water, with a little sand, or grauell in their Troughes:

Fattening of
Gese.

and

and with this order they haue them fat in foureténe dayes. After haruest, they will be fat with the Grotten, or Stubble. They are plucked (as I said befoze) twise in the yéere; in the Spring, and in the fall of the lease. Some vse to clippe them, but then their feathers neuer grow so well: but if you pull them, you shall haue them to come verte sayze againe: and this is enough for a Goose.

Ducks and Teales are to be ordered in like manner almost as Ducks. the Goose, sauing that they delight more in waters and Marshes: and therefore you must force some Waters, Lakes, or Poles, for them, whereunto they may easily goe and swimme, and dine at their pleasure. Columella would haue you haue a Court for the nonce for them, where no Cattail vse, and nere to the house, round about the which you shall build for them little handsome Rowmes, three fote square, with prettie dozes to euery one of them: which when they bréede, you shall képe Gutte. Hard by, you must haue either some Pond, or Riner, wherein (as I said) they may swimme: for without the helpe of the water they can as euill line, as without the land. It is good also to haue nere vnto them, some good Pasture, or Meddow, or to set about the Ponds or Riuers, such Hearbs as they best like; as Clauer, Fenegréeke, Endiue, Lettuse, and such other as they most delight in, and wherewith their young doe well feede: beside, you must giue them Otes, Barley, and other Corne in water. There is nothing that they more loue then Acornes, nor that better fattereth them. They delight wonderfully to be amongst Reedes and Sedges, wherein they may lye safe from rauenous birds, but so, as there grow no great stalked wéedes, that may hinder their swimming: for they delight greatly to play themselues in the water, and to strine who can swimme fastest, when the weather is sayze and warme: for as they loue such places where they may best pray vpon the creatures of the water, so are they much offended if they be restrayned of their libertie in swimming. In Winter, when the waters be frozen, you must ply them sometimes with meate. They delight to make their nests in some secret Couert, but therein you must preuent them, and make their nests in their owne lodging, or abroad, well couered and closed with Reedes: to which nest you must haue some little sluice, or gutter, by which you may euery day poluze in water and meate.

The fourth Booke,

Their feede must be (as I said) Otes, Barley, Pease, Pannicle, Millet, and Sperie, if you haue any store. They lay great store of Egges, wherewith, as with Goose Egges, you may well feede your familie. The Egges of Ducks and Geese, are kept in like sort as I told you of Hennes Egges: and beside, in Branne, Wheate, or Ashes. They breed in the same season that Geese, and other Fowle do, about March & Aprill. And therefore where you keepe them, you must strawe stiches and strawes for them to make their nests withall. Their Egges must be suffered to be hatched by themselves, or else remoued and set vnder some Hen: for the Ducklings that the Henne hatcheth, are thought to bee gentler and tamer. You must take good heed, that the Egges which they lay, be not eaten and spoiled by Crows and Pyes, while the Damme is seeking abroad for meate. If so be you haue Riuers and Lakes for the purpose, it is best to let the Dammes bring them vp: for when they be hatched, they will liue very well vpon the water with their Dams, without any charge at all: onely take good heed, that they be defended from Wizards, Kites, Crows, and other like Vermine: but so you vse them, as they will euery night come home to the house: for it is not good to let them be abroad in the night, for danger of losing them, and making them wilde. Yet hath it bene seene, that such as haue hatched abroad, haue afterwards come home, and brought with them a great number at their tayles. When I was Ambassadour in England, it was told me by men of good credite, that there was in Scotland nere to the Sea certaine trees, that yearly brought forth a fruit, that falling into the Sea, became a kinde of wilde Ducks, or rather Barnacles, which though it seemed strange to me, yet found I Aristotle a witness of the like, who writeth, that the Riuer Hypanus in Scythia, bringeth forth trees, whose leaues being somewhat larger then Maple leaues, whereof commeth a kinde of foure footed Byrdes.

Peacocks.

But now to Peacocks, which Birds, being moze for pleasure then profit, are meete to be kept of Noble-men, then of poore Husbands of the Countrey, though Varro writeth, that M. Aufidius Lurco, who first began the fatting of this Fowle, made yearly of his Peacocks foure hundred pound, whose example numbers following, the price of Peacocks grew to be great, so much

much, as their Egges were sold for halfe a crowne a p^{er}ce, the Peacocks themselves, at foure Nobles a p^{er}ce. The flesh is very good and delicate, m^ore for Noble-mens Tables, and will be long kept without corrupting, the Egges also be very pleasant, and good to be eaten. Hortensius they say, was the first that euer killed Peacocke for the Table in Rome, as a new dish at the Priests feast. To this Byrd, is ascribed both vnderstanding, and glozy: for being praised, he sets vp straight his taile, and (as Plinie eloquently describes it) chiefly against the Sunne, where by the beautie may more be seene. His taile falling euery y^{er}e with the fall of the leafe, he mourneth, and cr^eepeth in corners till his taile be sprung againe. They goe abroad, as Hennes and Chickins doe without a k^{ee}per, and get their owne liuings, they be best kept in little Ilands: for they sit neyther hie, nor farre off. Some thinke it to be a spitefull and enuious Bird, as the Goose to be Shamefast, and that he deuoureth his owne dung, because he would haue no man receiue benefit by him. He liueth (as Aristotle saith) five and twentie y^{er}es: he b^redeth at th^re y^{er}es old, the Cocke hauing his feathers diuers coloured: he hatcheth in thirtie daies, as the Gole doth, and layeth th^re times in a y^{er}e, if the Egges be taken away, and set vnder a Henne. You must looke that those that you set vnder a Henne, be new laid, and that the Henne from the first of the P^{er}one, be set vpon nine Egges, five of the Peacocks, and foure of her owne. The tenth day after she hath sit, take away the Hennes Egges, and put vnder the like number of fresh Hennes Egges. They must be turned, and therefore marked vpon one side. And see that you choose the greatest Henne, for if the Henne be little, you must take the lesser number of Egges, as th^re Peahens Egges, and six Henne Egges. When they be hatched, you must as you doe with the Henne, let them alone: the first day afterwards bying them out, and put them with the damme into a Pen, and feede them at the first with Barley slowze, sprinkled with water, or pappe made of any other Corne, and coled. A few daies after, giue them beside this, chopped Wekes, and Cruds, or fresh Cheese, the Whey well wrong out: for Whey is thought to be very hurtfull for the Chickins. After they be a moneth old, you may let them goe in the field, and follow the Henne,

tying

The fourth Booke,

tying the Henne with a long line, that she goe not too far abroad, but that the Chickin may come home in time. After the first moneth, you may giue them Barley, and Bread: and after the seauenth moneth, you may put them to roost in the house with the other, not suffering them to sit vpon the ground, but vpon Perches for taking of cold. And although when they were great, they chiefly delight to sit vpon the toppes of houses, and be as the Goose is, which are the best watchmen, and also the best warning giuers in the night time: yet is it best for you to vse them to sit vpon Perches, in houses made purposely for them. Columella thinkes it not good to suffer sundry Hennes with their Chickins to feed together, because the Henne after she seeth a bigger then her owne, maketh the lesse account of her own Chickins, and many times by that occasion forsaketh them. The Cocks, by the great lust that he hath to tread, breakes a sunder the Egges that be vnder the Henne, and therefore it is best to haue the Hennes to sit as secretly as may be: they also vse to beat and chase their owne Chickins, till they see them crested vpon the head, taking them till then, to be none of their owne. One Cocke sufficeth for five Hennes, who by too oft treading, doth many times cause that the Egges neuer come to good. In warme countries they begin to tread in February, when setting by his taile round about him, taking himselfe for no small person, he beginneth to woe, and therefore at this time both the Cocke and the Henne are to be cherished with meates for the purpose to increase their lust, as Beanes tossed a little by the fire, and giuen them warme every five daies in the morning. The quarrellous and troublesome Cockes, must be leuered from their fellows, for hurting the weaker, and keeping others from treading. The Hennes must be kept so, as they may lay onely in their houses, and every day groped for her Egges, and hardely looked to, with soft straw laid vnder their Perches: for many times they lay as they sit vpon the Perch. The diseases of this Foule, and the remedies, are almost one with the diseases of the house-Cocke and the Henne spoken of before, that is, the Dippe, and ill digestion. Their greatest danger is when their Coames come first out, for then are they pained, as children are in breeding of teeth.

Diseases:

MELLISSEVS. I would faine learne the right ordring of their outlandish Birds, called **Ginny-Cocks**, and **Turky-Cocks** Turkie
Cockes.

CHENOBOSCVS. This kinde of Poultrye wee haue not long had amongst vs : for before the yere of our Lord 1530. they were not seene with vs, nor I beleeue knowne to the old wyters. Some haue supposed them to be a kinde of the Birds, called in the old time **Meleagrides**, because of their blewish Coames : but these kindes haue no Coames, but onely wattels. Others againe reckon them for a kinde of **Peacokes**, because they doe in treading time after the same sort, spread and set vp their tailes, bragging and vantiing themselues : howbeit they nether resemble these in all points. But because this kinde of Fowle, both for their rarenesse, and also the greatnesse of their bodie, is at this day kept in great flockes; it shall not be much amisse to speake of them : for in daintinesse and goodnesse of meate, the **Hennes** may compare with cyther the **Walse**, or the **Peahen**, and the **Cocke** farre excell them. The colour of their feathers, is for the most part white, blacke, or pied white and blacke, some blew and blacke. Their sete are like vnto the **Peacokes**, their taile short, but spread, and borne vp after the **Peacokes** guise, specially when they tread. The heads and the neckes of them, are naked without feathers, couered with a wrinckled skinne, in manner of a **Colwe**, or a **Hoode**, which hanging ouer their billes; the draw vp, or let fall at their pleasures. The **Cocke** hath the greater wattels vnder his chaire, and on his brest a tuft of haire. The colour of that wrinckled skinne about his head (which hangeth ouer his bill, and about his necke, all swelling as it were with little blathers) he changeth from time to time like the **Camelion**, to all colours of the **Rainebow**, sometimes white, sometimes red, sometimes blew, sometimes yellowe, which colours euer altering, the Bird appeareth as it were a miracle of Nature. The dieting and keeping of them, is almost all one with the **Peacoke**, sauing that this Bird can worse away with cold and wet. It is a Bird wonderfully giuen to breeding, euery **Cocke** must as the **Peacoke**, haue foure or fve **Hennes** with him : they are more forward in breeding then the **Peacoke**, beginning cyther the first yere, or at the farthest at two yere old : they beginne to lay in
March,

The fourth Booke,

March, or sooner. In hot Countries they lay great numbers of Egges, if they be continually taken from them, and set vnder Hennes, and if so be you take them not away, they begin to sit at the first: for they be of all others most giuen to sitting, and so much, that if you take away all their Eggs, they will sit vpon a stone, or many times the bare Nest. You must therefore re- straine them of this desire, either thrusting a feather through their nose (as I told you before) or by wetting their bellies with cold water. You must set vnder their Egges as (I taught you be- fore) in the Peacocks: for they haue both one time of hatching. The keeper must marke the one side of the Egges, and alwaies turne them, sprinkling them now and then gently with faire wa- ter, and take heed the Cocke come not at them, for he will breake them as well as the Peacocks: for the Cocke of this kinde, is a froward and mischieuous Bird. The Chickens being hatched vnder a Henne, may be kept with the Hennes Chickens, or else very well alone with the Henne, growing faster a great deale then the Peachicke. You shall feed them in like sort as you doe the Peacocks, or other Poultry: for they will eate any thing, and delight in Grasse, Wordes, Grauell, and Sand. And be- cause they cannot away with cold, nor wet, you must keepe them in Winter, in the warmest and driest places you haue. The Peaches whereon they vse to sit, must not bee high, but an eyght or tenne foot from the ground, neither be they able to flie any great height, and therefore must be holpen with Ladders, or Steppes. The greatest disease that they are subiect vnto, is the Wippe, and the Squecke, which must be holpen in like sort as the Hennes, and the Egges kept after the same manner. In some places they vse to make Capons of them when they be young, which are serued as a daintie dish to the Table, as was much vsed in the house of that godly and vertuous Semprom, the Ladie Hales of Kent, who was first the wife of Sir Water Mauntill, of Northamptonshire, a woman in whom all vertues and bounties in her life time flourished.

Lady
Hales, a
mirrour
of Gentle-
women.

MELLISSEVS. I well remember that Lady, and haue heard her highly commended of such as in her life time best knew her, for a number of gracious and godly gifts that were in her, as her speciall loue and delight in God, and in his seruice, her helpe
full

full hand and comfourt to such as were poore, and distressed, as well in relieuing them with meate and money, as with healing diseases, and curing a number of loathsome, and almost incurable vlcers, and wounds, her milde and swæte disposition, her great humilitie and carelesnesse of the vaine world, and other such vertues, I would to Christ that all other Gentlewomen, that professe Christ outwardly were as well giuen to follow him in deed, as she was vnfaignedly.

CHENOBOSCVS. She was a very Phenix and Paragon of all the Gentlewomen that euer I knew, neyther am I sure I shall euer see the like: but shee happily resteth with him, whom in her life time she so earnestly serued. If you be not weary, I will returne to my Fowle, and shew you the best order for keeping and maintaining of Pigeons.

PVLLARIVS. I thinke both **MELLESEVS**, and **PISCINARIVS** would gladly heare you tell vs something of this, as I my selfe most willingly also would.

CHENOBOSCVS. Though you **PVLLARIVS** are better able to speake hereof then I am, yet because of my profession, I will not refuse to take it vpon mee. Whatsoeuer he be, that giues himselfe to the trade of Husbandry, it behooueth specially to haue a care for breeding of Pigeons, as well for Pigeons, the great comoditie they yeld to the Kitchen, as for the profit and yeerely reueneue that they yeld (if there be good stoe of Corne fields) in the Market. Varro writeth, that in his time a payre of Pigeons were sold for 1000. H. S. And that Lucius Axius, a knight of Rome, before the ciuill warres betwixt Cæsar and Pompey, sold his Pigeons at tenne pound the payre: so much was that time giuen to wantonnesse, and gluttony, yea, at this day in our time, hath bene scene giuen for a payre of Pigeons tenne pound Flemish. And therefore the Douchouses are commonly built with great cost, and beautie, in the toppes of turrets and houses, from whence by narrow grated windows they flie abroad to their feeding. Pigeons (if the countrey be for them) are fed and maintained with little cost, feeding themselues all the yeere long with such meate as they finde abroad, except at such time as the ground is covered with Snow, when as you must of necessitie helpe them with a little meate.

meat. There is two sorts of them, one wilde kinde, that is brought vp in Dove-houses, and of colour, epyther blewish, white, speckled, or dunne: howbeit, the white is not good to be kept, because they be soonest destroyed with vermine. In Italy there are of this sort, as bigge againe as ours, and are now common in Flaunders. Another sort is moze familiar and tame, and something moze large of bodie, with rough sixte, and commonly of colour white, and sometime speckled and yellowish: this kinde is commonly kept in Cities and Townes, where the others cannot be kept, and is fed with meat at home, & because they are ever in danger of vermine, and rauening Birds, they are still kept within doores, and alwaies fed at home. This kinde the common people call tame Pigeons, or moueth Pigeons, because they bræde euery moneth, saue in the dead of Winter. Both these sorts are wonderous fruitfull, bræding commonly eight times a yære (if the kinde be good) yea sometimes tenne, and cleuen times: for in Egypt (as Aristotle telleth) they bræde all the Winter long. And though Hennes are moze fruitfull in laying of Egges, yet Pigeons are moze profitable by often byinging forth young: and therefore you must prouide you such bræders, whose bodies be great and faire, not too old, nor too young, of a good and perfect colour, and a fruitfull kinde. It behooueth him that will begin a Dove-house, not to begin with the young and little ones, but with the bræders, and to buy so many Cokes, as he doth Hennes, and to keepe them if he can matched together of one Nest: for if they be so matched, they will bræde a great deale better. They bying forth commonly a Cocks and a Henne together (as Aristotle writeth) and our experience sheweth it. In March they begin to bræde, if the weather be warme, before. There is no Bird fruitfuller then the Pigeon, and in fortie daies she conceiueth, layeth, and sitteth, and brings vp, and that for the most part all the yære, except (as I haue said before) in Winter. She layeth two Egges, and when she hath layed the first, which is a Cocks, the next she layeth, which is a Henne, the third neuer lightly commeth to good. Both the kindes doe alwaies sit, the Cocks in the day, the Henne in the night, they hatch in twentie daies, they lay after sixte treadings. In Summer they sometimes bying forth in two moneths

moneths thre paire : For vpon the nineteenth day they hatch, and presently conceiue againe. And therefore you shall often finde among the yong Pigeons, Egges some readie to hatch, and some flying : if there be no Cockes, the Hennes will tread one another, but the Egges neuer come to good, but are winde Egges : Aristotle and Theodorus calleth them water Egges, whereof there neuer cometh any thing, and because the young ones will breede at five moneths old, we suffer the first flight to lie, to increase the breede : as being hatched in March, will breede againe in July, or August. Those that we meane to take for the Kitchen, or the Market, are best to be drawne at the later time of the yeare, when they are worst able to defend themselves from the cold, and from Buzzards, and Crows : the best for brood among all Fowles, is the March breede. They that meane to fat Pigeons to sell them the dearer, doe seuer them when they be newly feathered, and feede them with chawed white Bread twise a day in Winter, and thise in Summer: and such as be now hard pend, they leane in the Nest, plucking the feathers of their wings, and breaking their legs, that they remoue not from their places, giuing the dammes good plenty of meate, that they may better feede themselves, and their young. Some (as Gellius writeth) doe softly tye their legs, for if they should breake them, they thinke the paine would keepe them from fasting : but this tying doth little good, for while they struggle to get themselves loose, the labour will keepe them from being fat : but their legs being broken, the paine will not remaine a boue two daies, or thre at the vttermost, and will keepe them that they shall neuer stray from their places. Some vse onely to pinion them, but so fall they many times out, and become a prey to Terminate : and therefore it is good to bring them to the Kitchen, before they be full ripe. The vnfruitfull and naughtie coloured, and the otherwise faultie, ought chiefly to be fatted, and must be crammed in such sort, as you cramme Capons. Douc-houses, or places for Pigeons, to builde in, are made after diuers manners : for the same Pigeons, and such as are sed at home, they make in the highest parts of their Houses lying toward the South, certaine hollow Roomes, and Celles for them, such as P V L L A R I V S hath described of his Pullein : and if

The fourth Booke,

the place doe not so serue, drying in certaine Pinnes into the wall, they lay vpon them frames of boards, with partitions in them, or earthen pots to breed in, letting certaine Ledges runne from hole to hole, that they may the better come to their Nests, and walke vp and downe in the Sunne. But the houses for the other wilder kinde, because they containe great numbers, are built after a moze handsomer order, although vnder the Eues of houses, and in Steeples of Churches, you shall haue thousands breeding. Varro appoints the Douehouse to be built in this sort: a Towrie adioyning to the house, and well lofted and seled aboue, with one little dooze in it, and foure windowes, answering the foure quarters of the Heauen, which windowes must be well grated, so as they may giue light enough, and keepe out vermine. All the walles within must be faire white limed, for with this colour is the Pigeon wonderfully delighted: besides it must be well pargetted and plaistred without, specially about the windowes, so as neither Mouse, Weasell, nor other Vermine may enter: the windowes must be so placed, as they may let in the Sunne all the Winter, hauing a hole of sufficient widenesse ouer against them, well netted and tunnelled, in such sort as the Pigeons may easily flie out and in at, and yet not suffer any hateful Bird to enter: for the Pigeon taketh great delight in flying now and then abroad, where after she hath recreated her selfe, she commeth with ioy to her nest againe: as on the other side she mourneth, if she be restrained of her liberty. Round about the wals within you must haue little round holes, from the top to the bottom, wherein they may breed: Varro would haue them three handfulls in length, and ledged from hole to hole for them to walke vpon. Some thinke it best to make your holes of Lome, or Lime and not of Bricke and Stone, as may do, because of the swarmth. There be some that builde their Douehouses vpon pillers in the midst of some Pond, or great water, both because they delight in water, and because they wil haue them safe from vermine. The meat that they most delight in, is Tares, wilde Fetch, Pease, Wheat, Millet: where these be not, you may giue them Spery, specially in Winter Rape seed, and Cockle: for by gathering and pecking vpon these little seeds, they get themselues a heat in cold weather. When you giue them meat, you must throw it hard by
the

the walles : for that part is commonly cleaneft from dung. And though Varro bids you to ſweepe and make cleane your Doue houſes continually, & that the dung is good and profitable for the field, yet ſeeing this kinde of fowle doth delight in places ſprinkled with their owne dung, you ſhall not neede to be carefull in clenſing of it. Loke well that they be not fraid, or diſquieted with Gunnes, or noiſe of people, or other like, ſpecially when they ſit: if you haue occaſion to goe into the houſe, ſee that you doe it about noone time, when they be abroad a ſeeding, and be ſure to knocke wel befoze you come in. Some ſay, that it will cauſe them to loue the houſe, and allure others to come thither, if you ſprinkle them with Commin befoze they goe to ſeeding, or perfume the houſe with Sage, and Frankenſence. Some haue another experience for this purpoſe, and that is Bottherds beaten ſmall and ſearced, mingled with the hearbe Coaſt, and good old Wine, and giuen vnto them. Others take Barly ſoluzed, ſodden with drie Figs, and a part of Hony. Cardan teacheth this, as the beſt for this purpoſe, of Barly or Millet, of Commin, of Coaſt, of Agnus Caſtus, of Hony, of old Rhome, or Porter, of good Puſkadel, boile them all together, and make a ſtone of them to be ſet in the middelt of a houſe. Tragus teacheth to take the rootes of the Thiſtell, and to boile them with the pickle of Hearings. Conſtantine out of Didymus, writeth of diuers other things for this purpoſe, which who ſo will, may trie. Loke well that they be not deſtroyed by the Hawke, or Buzzard: the Hawke is a ſpeciall enemy to this Bird, whoſe taking, Varro teacheth you in this manner: to lay a Pigeon vpon the ground, and to ſticke, bending cloſely ouer her, a couple of Lime rods. There is a kinde of Hawke, that naturally is terrible to other Hawkes, and preſerueth the Pigeon: the common people call it Caſtrel. Columella affirmeth, that if you take the young Caſtrels, and preſerue them euery one in earthen veſſels well covered and plaſtered all ouer, and hang them in the corners of the Doue-houſe, it makes the Pigeon haue ſuch a loue to the houſe, as they will neuer forſake it. They haue many other aduerſaries, Crows, Dawes, and Owles, which all deſtroy the Pigeons, ſpecially when they breed. I found of late in mine owne Doue-houſe, an Owle ſitting ſolemnly in the Neſt vpon her Egges in the middelt of all the Pigeons, and hard by

The fourth Booke,

the house of an old hollow tree, I found peeces of young Pigeons, that the Doves had brought to feede their young with: and though the Dove seems to be greater then the Pigeon, by reason of the thicknesse of her feathers, yet will they creepe in at as little a place as the Pigeon will: so small and little is their bodies, though they be bombased with Feathers. Againe, *Wæfels*, *Stotes*, & such like, *Palladius* would haue you hedge the Dove-house about with sharpe prickly branches void of leaues, as *Goyle*, *Bypers*, and such like, as they dare not passe through for pricking. *Dydimus* and others, do bid you hang great branches of *Rue* all about the house, specially at the entrance of the dove, or to put wilde *Rue* vnder their wings, or to sprinkle them with *Rue*: for this hearbe (as they say) hath a speciall force against such hurtfull vermine. Some say, that if a *Wolces* head be hanged in the Dove-house, it will drie away all hurtfull vermine.

MELLISSEVS. We haue heard enough of Pigeons, I pray you proceed with such other Birds as you keepe in the countrey. Keepe you any *Felants* here?

Felants.

CHENOBOSCVS. This kinde of Birds (though they be verie seldome kept among the countrey people) yet of many curious and fine fellows, for their rarenesse and daintinesse, they are brought vp and kept. And because they benefit the keeper, and profit the Husband, (if the soyle and countrey be for them) the old writers haue placed the keeping of them, within the compasse of husbandrie. *Palladius* teacheth, that you must prouide such as be young and luffie, that were of the last yeeres bringing forth: for the old ones be neuer fruitfull. One Cocke is sufficient for two Hennes: they breede once a yeere, and lay to the number of twentie Egges, beginning in *Aprill*, and somewhere in *March*, but they are better to be brought vp vnder a Henne: so as you set vnder one Henne fiftene Egges, observing the time of the Hone, and the number of the daies, as I told you befoze of the Henne. The thirtieth day they come forth: for the first fiftene daies you must feed them with *Barly*, floure tenderly sod, and coled, vpon which you must sprinkle a little *Wine*. After you shall giue them *Wheate*, *Crashoppers* and *Antes* Egges: let them not come nere the *Water* for catching the *Wippe*, which if they chance to haue, you shall rubbe

rubbe their billes with Garlick, stamped together with Tarre. They are fatted in thirtie dayes, with Wheat-floure, or Barly-floure made in Pellets, the Pellets must bee sprinkled a little with oyle, and so put into their throates: you must take heede you put it not vnder their tongues, for you doe, you kill them: neither must you giue them any meate till you perceiue the first be digested.

PVLLARIVS. What say you to Turtle Doues, these are also brought by and kept in some Countries.

CHENEBO. Columella affirmeth, that Turtles will ne-
uer lay, nor bring forth in the house, nor Partridges: and there-
fore they vsed to take them wilde when they were full ripe, and to
fæde and fat them in little darke rooms like Pigeons holes: the
olde ones be not so good, as neither the Pigeon is. In Winter
you shall hardly haue them fat, in Sommer they will fat of them-
selues, so they may haue plenty of Wheat and Cozne: the wa-
ter must be very cleare and fresh that you giue them. They hold
opinion, that the Turtle after he hath lost his mate, continueth
euer after solitary. But because there is greater store of Thrushes
and Blackbirds, we care the lesse for keeping of Turtles.
Though Thrushes and Blackbirds bee kept in diuers places: yet as
Plinie saith, there is in no place greater companie, then is taken
in the Winter time in Germany: that they were vsed for
great dainties, appears by Horace:

No daintier dish then is the thrush,

Nor sweeter then the Trypt.

They are commonly dressed whole, and not drawne, for their in-
ward partes may well be eaten, so they be new: their Crops
are commonly full of Juniper Berries: Pastre Varro writeth,
that Thrushes were in his time at twelue pence a peece.
Where they vsed to keepe them, they also put as many as they
take wilde among the others that they brought by before, by
whose company and fellowship they passe away the sorrows of
their imprisonment, and fall to their feeding: for you must al-
wayes haue olde fellows for the purpose, by whose example they
may learne both to eate & drinke. They must haue warme houses,
as your Pigeons haue, crossed through with small Beatches:
for after they haue flown about, or haue sed, they desire to rest.

The Perches must be no higher then a mans height, so as you may easily reach them standing upon your foete. The meate must be cast in such places of the house, as lye not vnder the Perches, for flying of it. Columella and Palladius write, that vnripe Figges beaten and mingled with Wheate-flour must be giuen them, that they may eat thereof their fillles. Aristotle maketh many kindes of them, among which hee also putteth the Colmons, that feede vpon Crapes. Our Thrushes doe feede for the most part vpon Juniper berries, which their Croppes being opened (as I said) doe shew. They be also in many places to keepe Quailles, which is rather a Bird of the Earth, then of the Ayre (as Plinie saith) but because they feede vpon Elebor, and venenous seedes, and beside are bred with the falling sicknesse, many dee meruaile (as Athenæus writeth) why they be so greatly esteemed. They say their young must be fedde with Antes, and Emets Egges, as the Partridge. It is thought, that he flieth ouer into other Countries in the Winter time, as the Crane, and the Storke doth, following for the guide the oldest Quaille, called the mother Quaille.

Quailles.

PVLLARIVS. You haue gotten one noble and goodly fowle, that is vsed to be brought vp in the husbandmans Ponds, Lakes, and Riues, I meane the Swanne.

The
Swanne.

CHENOBOSCVS. You say true: for this Bird commonly brought vp in the Low-Countries, and kept in great numbers in Lincolne-shire, a Countrey replenished with Gentlemen of good houses, and good house-keepers. And Athenæus alledging the authoritie of Aristotle, accounteth this Fowle to be very fruitfull, and of great stomacke, so much, as it is thought they dare giue battaile to the Eagle. They are bred and kept (as you well say) in Lakes, Riues, and Fish-ponds, without any charge at all, and doe great good in the Riues by plucking vp the weeds, and other annoyances: for the excellency of his downe, and daintinesse of his flesh, he is greatly esteemed. There is one excellent kinde of them, that taketh his name of the good watch that hee keepeth, and is alwaies cherished and kept in the Ditch of Cities, and fortresses, for his great faithfulness in giuing warning. They be kept almost like

like manner as Geese are, but that they vse to sit longer, sitting a whole moneth or thereabouts: they bring forth seldome aboue eight, and so many did my Swannes bring me, and sometime five. They make their Nests hard by the water, of Sedges, Weeds, and like stufte: their young ones they carry straight in to the riuers. If the Lakes and Streames be frozen in Winter, you must house them. This Bird is counted among such as liue longest, fore-shewing her owne death, as Plato and Martial witness, with a sweet and lamentable song. Thus much concerning my profession I haue told, I trust you that be my friends, will take it in good part, and now PISCINARIVS I resigne my place to you, to whose turne it is come.

PISCINARIVS. It falleth out in good order, that from talking of Winter Fowles we should come to entreat of Fish, Of Fish-ponds. ponds, and Fish: although I doe mean to entreat largelier both of keeping and taking of Fishes in my Halenticks, but because the husbands house, both for watering of cattell, and other vses, cannot be without Ponds, and Lakes, and that euery house is not so seated, as it hath earable ground about it, it is lawfull for the husband to make his best aduantage of his Ponds, and Waters. The Noble-men and Gentle-men of Rome, were wont to build about their Houses faire Fish-ponds, and many times satisfied herein their pleasure, with exceeding cost and expences, as M. Varro writeth of the sumptuous and costly Fish-ponds of Hortensius, Hircius, and Lucullus. M. Cato, when he had the wardship of Lucullus, made foure hundred pound of the Fish in his Pond. The same Varro maketh mention of two sorts of Fish-ponds, the one of sweete water, the other of salt, the one amongst the common people, where the Springs feede them, and of great profit, the other nere to the Sea, where Neptune doth yeld them both Roze of Water and Fish: for examples, may serue the Fish-ponds of Hortensius, which rather pleased the eye, then the Purse. The best making of Ponds, is eather by the Sea, as Lucullus, who to let in the Sea into his Ponds, made a passage through the middelt of a great hill, where by he thought himselfe as great a Lord of Fish, as Neptune himselfe: or else to haue them from some great streame or Riuer, that may bring in both Water and Fish, which by Flood or

The fourth Booke,

Sluse, may let in alwaies fresh water, not suffering the old to corrupt, but alway refreshing it, and bringing moze Fish. The next in goodnesse, are those that are led with pipes or secret passages vnder the ground, and may be let out againe by Sluses, which Sluses must so be made, as when you list, you may let the water into your Headowes, to make them moze fruitfull, as is to be seene in the Countreies of the Switzers, and Heluetians, and in many other places. And therefore the waters (as I said) must be well inclosed with good Bayes, Bankes, and Walles, that they may be able to abide the rage of the floods, and the water. The worst and last kinde, is such as are made in Lakes, standing Poles, or raine waters. These kinde of Ponds, though they be the worst, by reason of their vncleane stinking and corrupt water, yet where there is no better, are to be made account of: for though they be not the wholesomest for keeping of Fish, yet they yield some commoditie, and are most necessary about the house, eyther for watering of Cattell, keeping of Geese and Duckes, and washing, and other like uses: but if so be you can make them eyther by the Sea, or nere some great Riuer, so as the water may be let in and out at your pleasure: and whensoever you open the Sluses, to let out the water. Be sure that you haue them well grated, that the Fish can by no meanes passe through, and let the passage, if the place will suffer it, be made on euery side of the Pond: for the old water will best void, whensoever the streame bends, if the current lye against it. These Sluses or Passages, you must make at the bottom of the Ponds, if the place will so serue, that laying your leuell with the bottome of the Pond, you may discern the Sea, or Riuer, to lye seauen foote higher: for this Columella thinks, will be a sufficient leuell for your Pond, and water enough for your Fish. Howbeit, there is no doubt, the deeper the water comes from the Sea, the cooler it is, wherein the Fishes most delight. And if so be the place where you meane to make your Pond lye leuell with the brim of the Sea, or the Riuer, you must digge it nine foote deepe, and lay your Currant within two foote of the toppe, and so order it as the water come in abundantly: for the old water lying vnder the leuell of the Sea, will not out againe, except a greater rage come in: but for the Pond that is
subiect

subject to the flood and ebbe, it is enough if it be but two foote deepe. In the bankes and sides of these Ponds, you must haue Bushes and Creeke-holes for the Fish to hide them in from the heat of the Sunne: besides, old hollow trees, and rootes of trees are pleasant and delightfull harbours for Fish. And if you can handsomely conuey them, it is best to bring from the Sea, little Rocks, with the Weeds and all vpon them, and to place them in the middell of your Ponds, and to make a young Sea of them, that the Fish may scarcely know of their imprisonment. About Turwan in France, and in other places, you shall finde in Loughes and Kayne-water, euen in the Wildernesse and Heathes, great abundance of Fish. In diuers places of the low Countries, where they haue their Ponds fed with the Riuer, which they may shut out at their pleasure, they so order them, as they be eyther enutrone'd, or decided with deeper ditches, wherein the Fish doth liue in the Summer time: and the rest of the ground betwixt the ditches, the water being voided and kept out by Sluses and Bankes, is sow'd with Summer Corne, and after Haruest, the water let in againe, whereby the ground being wonderously enriched, doth yeld great Cropes of Barly and Summer corne, and (as the Poet saith) for the land, so may be said for the water, Not euery ground for euery seed, but regard must be had, what for euery one is meet. The Romanes keepe in their Ponds Lampries, Oysters, Luces, Gulletts, Lampozns, Gylthoodes, and all other Fish besides, that are vsed to be kept in fresh waters. Ponds for Oysters, were first deuised by Sergius Orata, at the Baynes, about the time of L. Crassus the Orator, befoze the Battaille of Marsie, not so much for delicacie, as for the commoditie and gaine. Cockles, and Muffles, were kept in Ponds by Fuluius Hirpenus. Moreover, diuers Fishes delight in diuers places. The best Pikes and Luces were thought to be in the Riuer of Tyber, betwixt the two bridges: the Turbotes, at Rauenna: the Lampries in Cycill: so Riuers, Lakes, Posies, and Seas, in some places haue better Fish, then in others. But to returne to my Fish-ponds from whence I came, neyther may all sorts of Fishes be kept in euery one, for some sorts are grauellers, delighting onely in Grauelly, Stony, and Sandy waters, as Peanoines, Gudgins, Bulheads,

The fourth Booke,

Ruffes, Trouts, Perches, Lampzons, Creuiltes, Warbils, and Cheuias. Others delight againe in Muddie places, seeking euert to lie hid in the Mud, as the Tench, the Ele, the Bream, the Carpe, and such others. Some againe delight in both, as the Pike, the Luce, the Carpe, the Bream, the Bleake, and the Roach. The Grauelly Fishes, specially the Penowes, are ingendred of Shæpes dung, laid in small Baskets in the bottome of a Grauelly Riuer. The Luce, or Pike, groweth (as likewise doth the Carpe) to be great in a short time, as in thre or foure yeres, and therefore in such Ponds as haue neyther the Sea, nor Riuer comming to them, we vse euery fourth, or third yere, to draw the old, and to stoze them with young. And in these parts we chiefly stoze them with Carpe, hauing small Ponds and Stewes for the purpose to keepe them in, so as you may come by them at your pleasure. Thus much I thought good to declare vnto you touching my profession, let vs now see what you (MELLISSEVS) can say for your Bees, and your Hony.

Bees.

MELLISSEVS. Because I will not haue our discourse of husbandry depriued and maymed of such a profitable member, whose vse may in all places, be they neuer so desert, or barren, be had, I thinke it good as a conclusion to the whole, to shew you for my part, the manner of keeping and ordering of Bees: for the good husband by cherishing of them, picketh out many times a good peece of his liuing, yea, the poore soule of the Countrey that hath no ground to occupie, may raise hereof and that without charges a great commoditie. Merula reports, that Varro had yereley for the Kent of his Bees, a thousand gallons of Hony: and that in a house in Spaine, hauing not passing one Acre of ground to it, hath yereley haue made of the Bees, foure scoze pounds worth of Ware and Hony. This little poore creature the Bie, doth not onely with her labour yeld vnto vs her delicate and most healthy Hony, but also with the good example of their painefull diligence and trauaile, encourageth man to labour and take paines according to his calling: in such sort, as it seemeth the Almighty and most excellent Paiskie, hath of all other specially created this little poore creature, for the benefit and commoditie of man: by whom besides the com-

moditie

Industrie
of Bees.

modittle of the Honey and Ware that they make, we might take both example to spend our life in vertuous and commendable exercises, and also to honour and reuerence the wonderfull bountie and goodnesse of the most gracious Lord shewed towards vs, in the creation of this small and profitable Moorme. They are continually bused in labouring, they shew great cunning and workemanship in their traualles: they haue alwaies amongst them the lively Image of a perfect Common-wealth, they yeld obedience to their Prince, not liking the government of sundry heads, but loue to be ruled by one: each one of them laboureth and traauayleth in his charge, in so much, as the wisest Governours and Councillers in Common-weales, haue taken the Bées for their Patterne in choosing of Princes, distributing of Offices, rewarding of vertucs, and punishing malefactors. Varro did alwaies call them the Birds of the Muses: and Virgill with wonderfull colours, doth eloquently set forth the Bées, their Common-weale, Palaces, Buildings, Cities, Lawes, Paimers, Warres, and Traualles, supposing them to be partakers of reason, and that they haue some instinct from aboue, in that they so nere resemble the mindes of men, yea, many times excell them, touching their obedience to their Prince.

Bees their
Common-
weales.

The Birds
of the
Muses.

Not Egypt in his prime, nor Lydia large and wide,
Ne yet the Parthian people great, nor all the Medes beside,
Doe so their King obay, who being safe and well,
Their mindes are all together one, he onely beares the bell.
On him they cast their eyes, and garde him day and night,
And oft they beare him on their backs, in his defence they fight:
But if he chance to dye, then all is dashte and done:
Their Combs asunder downe they teare, and all to ruine runne.

Virgill.

If the King be taken, the whole Swarme is had: if he be gone, they disperse themselues abroad, for they cannot liue without a King, hating as well the headlesse government, as the subiection to many heads. If the King, or (as we tearme him) the Paister Bée die, the whole Swarme Droupeth, and mourneth, they straight waies cease from gathering of Honey, they stirre not abroad, but onely with a heauy and sorrowfull humming, they Swarme and cluster

The fourth Booke,

cluster together about his bodie. The nature surely of this poore creature is greatly to be wondred at.

Virgil

They onely of their broode haue a common care,
And neighbour-like their houses nearely stand:
And ruled are by Lawes that none do spare,
Alone they know their home and natiue land,
And mindfull of the stormy Winter neere,
In Summer get to liue by all the yeere.

Their Princesse pallace is sumptuously built, in some seuerall part of their Diues, being mounted aboue the rest, which if you haue pen to hooles, you destroy the brood. They liue all as it were in a Camps, and duely keepe their watch and ward, working together, and oftentimes sending abroad their Colonies, they are learned at their Captaines appointment, as it were with the sound of a Trumphet, by which they know both their times of warres, and truce: they ward all the day time at their gates in warlike manner, and haue great silence in the night, till one of them in the morning humming out the discharge of the watch: they get them abroad to their businesse, as the Poet hath eloquently expressed.

Virgil.

Together all they quietly doelic.
Together all they toyle with equall might:
And in the morning forth together flie.
And home as fast they come againe at night.
Where as they lay their weary lims to rest,
And trim their wings, and set their legs in frame:
Till euery one himselte hath throughly drest,
Then singing at their doores a while they game.
Till one giues warning for to go to bed,
Then downe they lay to rest their sleepe head.

For when the sleepe time of the night comes in, they make lesse and lesse noise, till one of them goeth about with the like sound that he gaue in the morning, setting as it were the watch, and giuing them warning to go to rest: at which time they all suddenly

denly hold their peace. In the morning (as I said) at the discharge of the watch, they roame straight to the gates, but flye not abroad, except they see the weather will be faire: whereof by nature they haue perfect vnderstanding.

Nor from the Hiues, if like it be to raine,
 They farre doe stray, nor trust will they the skie:
 If thar the South-wind blow, but still remaine
 At home, or busied be with waters nie.
 Short flights they make, and when such stormes they see,
 They beare about the smallest stones they finde:
 And as the Boates in floods that balast bee,
 So with the same they counterpoise the winde.

Bees fore-
 shewing of
 stormes.

Being loaded, they flie with the winde: if any tempest suddenly arise, they counterpoise themselves with little stones, flying in the winde as neare the ground as may be: their labour, both at home, and abroad, is certainly appointed. They labour at the first within the compasse of thre&scorze paces about the Hieue, and when the flowres there haue bene sufficiently wrought, they send abroad their discourers to finde out more foode. And when they fall all together to their businesse, some worke the flowers with their scete, others carry water with their mouthes, and droppes in their little scées: the young lustie fellows labour abroad, the elder at home. Those that goe abroad, do with their forelegs lade all their Thighes, which nature for the nence hath made rough: thus being loaded, Legs, Head, Backe, and all, as much as they may beare, they returne home, where there waiteth commonly thre& or foure at the doore to vnlode them. Within, all this while are some laying in order, some building, some making cleane, and some making readie their meate: for they scede seuerally, for feare of beguiling one the other. They frame their houses archwise within the Hieues, with two passages, so as they may enter one way, and goe out another. Their coames that they make are wrought full of holes, which holes (as Varro saith) are their Celles or lodgings, made euery one sixe quare, according to the number of their feet: these Celles they doe fill with Honey, filling euery one in a day or two. These coames are fastned.

The fourth Booke,

The punishment
of loiterers.

fastned to the vpper part of the Hiue, and hang little vpon the sides, not cleauing to the Hiue, being now cornered, now round, according to the fashion of the Hiue: as both Plinie reporteth, and I shall hereafter shew you, when I speake of the framing of the Combs. The Combs are kept vp from falling, with small pillars and proppes below, so built as they may goe round about to repaire them. The thre first lofts of their Celles beneath, are left empty for feare of the Hiue: the vppermost are as full as may be, such as are loyterers and idle vagabonds amongst men, are noted, and punished with death.

Some range for food and plie the fields abroad,
Some still at home doe labour busily:
And round about with waxe the Hiues doe loade,
Which from the gummes they painefully doe trie.
The first foundations for the Combes they make,
And clammy cleauing Waxe they fasten by:
While others of their broode the charge doth take.
And fosters vp the seede that shall supply.
An other sort doth worke the Hony pure,
And fillles the Celles with licour that you see:
And others are appoynted to the doore,
To looke abroad vvhether is like to be,
Or to vnload such as haue laboured vvell,
Or els to driue the drouisie Drone away:
Their labour smokes, and all of time doth smell,
The Hony sweet that in their Combs they lay.

And a little after.

The great doe guide the Hiue,
Make fast the Combes and Pallaces contriue.

CHENO. Of the worthinesse, trauaile, workmanship, and good order of this little creature, you haue sufficiently spoken, it now remaines that you declare vnto vs their sundry kindes, their keeping, and their ordering.

MELLISSEVS, Aristotle maketh many sorts and kindes
of

of them, whereof he counteth the short speckled, and well knit to the best: and next to them, the long ones like Waspes: the third, the kinde that you call the *Theefe*, with a very large bodie: the fourth, the *Drone*, being bigger then all the rest, wanting both his sting and courage to labour: and therefore they vse to make at the entrie of their *Hives* small *Gates*, wherein the *Bee* may enter, but not the *Drone*. And the same *Aristotle*, in the chapter before saith, that there are two kindes of *Kings* or *Maister Bees*, the one of a golden colour, which is counted the best: the other blacke, and more partie coloured: they be twice as bigge as the other *Bees*, the tayles of them as long as one and a halfe of the other, they are called of some, the *Bother* of *Bees*, as the chiefe *breeders*, because the young of the *Drones* are bredde without a *King*, but the other *Bees* neuer. *Virgill* following herein *Aristotle*, doth most commend the little, long, smothe, and faire *Bee*, and making mention of two sorts of *Kings*, he describes the worst, whereby he shall doe no harme.

The kinde
of Bees.
The
Theefe.
The
Drone.

Breeders.

The best
sorts of
Bees.

Destroy (saith he) and let the other liue,
Whose golden hew doth glister in the eye:
And decked with glittering scales, faire shew doth giue,
Of farre more grace, and farre more Maiestie.
With loathsome looke the other doth appeare,
And dragling drawes his tayle with heauie cheare.

The shape
of their
King.

And as there is two sorts of *Kings*, so is there of the other *Bees*.

Some *Vglie* seeme, and some againe doe shine,
Bedasht with drop of golden colour fine.

Being milde and gentle: for the *Bee*, the greater he is, the worse he is, and if he be angrie, and fierce, and round, he is worst of all. And because (as I said before) the best are onely to be medled with. sith the good and the bad are a like chargeable, and require like tendance, and speciall haerde to be had that you mingle not the bad with the good: for lesse will the encrease of your *Honey* be, if some of your *Swarms* be ill matched. You may stozz your selfe with *Bees* thze manner of waies, eyther by buying them, taking
the

the wilde Swarines, or making them by Arte. Such as you buy, let them be of the kinde and shape that I told you of, and be sure before you buy them, that the Swarines be whole and great, which you may iudge by looking into the Hīue, or if you cannot be suffered so to doe, you may guesse it by other tokens: as if so be you see great numbers clustering at the doore of the Hīue, and if you heare a great huzzing and humming within: or (if they be all at rest) putting your lippes to the mouth of the Hīue, and blowing therein, you shall easily perceiue by their answering sound, whether their number be great or no. In buying them, beside, you must looke whether they be sound, or sicke: the signes of their being in health (as shall be shewed when I speake of their diseases) is, if their Swarines be great, themselves faire, and well coloured, and worke lustily. Againe, a token of their not being well: as if they be hazzie, looke loathsomely, and dustilie, except at such time as they labour: for then they ware leane and russe, with extreame trauell. You must make your coniecture likewise by their age, such as are not about a yere olde, looke faire and smothe, and shine, as if they were Oyled: the old ones are both in sight and feeling, russe and rugged, and by reason of age, wrinckled: which neuertheless, for cunning in making their Combs, experience, industrie, and skilfulnesse in the weather, doe farre passe the others. In any wise see that you buy them rather from your next neighbour, then from a strange Countrey, or farre off, for they many times perish by change of ayre, or shaking in the carriage. And if you be driuen to carry them farre, take heed you neyther iogge, nor tumble them: the best way to carry them is vpon a mans shoulders, and that in the night time, suffering them to rest in the day, and polving in to them such sweet things as they delight in, and keeping them close. It is better removing them in the Spring, then in Winter: for they doe not so well as growe with Winter. If you carrie them from a good place, to a barraine, they will straight-ways bid you farewell, and forsake their Hīues. When you haue brought them to the place where you meane they shall stand, if it be day time, you must neither open them, nor place them till it be night, to the end they may after the quiet rest of the night, goe cheerfully to their worke the next morning. Be sure to marke them well besides for two or

What to
be confi-
dered in
buying of
Bees.

Transport-
ing of
Bees.

The ta-
king of
Bees.

three dayes after, whether they goe all out or no : for if they doe, it is a shewde signe they will away. Sometime, if the place be good, you shall assay to stoze your selfe with wilde Bees : for although that Bees (as Plinie saith) cannot be rightly tearmed either wilde, or tame, yet Varro calleth them wilde that bræde in wilde places, and tame, such as we keepe at home : and affirmeth the manner of keeping them to be diuers. There is great stoze of the wilde sort in Sarmatia.

PVL LARIVS. They say, that in Liuonia and Sarmatia, (from whence is brought hither great stoze of Waxe, and Hony) the Countrey people doe gather it in great abundance in hollow trees, and desart places.

MELLISSEVS. The greatest token of Bees and Honey nere, is where they be in great numbers about the waters: for if you see the number but small, it is a signe it is no good place for Bees, and if so be you see they come in great numbers, you may some learne where the stocks be : in this sort, as Columella and others haue taught: You shall carry with you in a Saucer, or such like thing, some redde colour, or painting, and standing nere to springs, or waters thereabouts, as fast as they come, touch them upon the backs while they are a drinking, with some little straw dipped in the colour : and tarry you there till such time as you see them returne. If the Bees that you marked doe quicklie returne, it is a token their houses be not farre off, if it be long ere they come, it shewes they dwell farther off: wherefoze you may iudge by the time. If they be nere, you shall easily finde them, if they be farre off, you shall come to finde them in this sort: Take a peece of a Rode, or a Ker, with his knots and ioynts, and making a small hole in the side, powze into it eyther Hony, or some swæte thing, and lay it by the water : and when you see the Bees haue found it, and entred the hole for the saour of the Hony, stoppe you the hole with your thumbe, and let but one goe out at once, whose course you shall follow, as farre as you can see him, and this shall bring you part of the way : when you can no longer see him, let out another, and follow him, and so another, one after another, till you come to the place. Others vse to set some little vessels with hony by the water: which, when some one Bee or other hath hapned to taste, she giueth straight knowledge to

To finde
out the
Bees.

The fourth Booke,

to her fellowes, whereby by their flying in number, they come to finde out their dwellings. If you finde the Swarme to be in some such hole, as you cannot come at them, you shall driue them out with smoke, and when they be out, bring them downe with the ringing of a lattin Bason, so as they may settle vpon some tree, from whence you shall shake them into your Hiue. If the swarme bee in some hole aboue in the branches, you may sawe off the branch handsomely, and couering it with a white cloth, place it amongst your Hiues. If they be in the body of the tree, then may you softly sawe off the tree about the Bees, and after ward, close vnderneath them: and being couered as befoze, carry them home, stopping well the chinks and riftes, if there be any. He that seeketh the Bees, must begin in the morning, that he may haue the whole day befoze him to marke their labouring. Thus farre of the kindes of Bees, and getting of them: now will I shew you of the placing of them, ordering, and keeping of them. The place for your Bees and your Hiues must be so chosen, as they may stand quietly and secret, standing specially in such place, as they may haue the Sunne in Winter, and in the Spring time alway at the rising, and such as is neyther too hot, nor too cold: for the excesse of epyther doth hurt them, but rather temperate, that both in Summer and Winter, they may haue moderate warmth, and wholesome ayze, being farre remoued from the company of epyther man, or beaſt.

Standing
for Bees.

Whereneither winde may come, whose blasts forbids
Them bringing home their loade, nor sheepe, nor wanton Kids,
To spring among the flowres, nor warding best,
Shake off the dew, and trampling spoyle the rest.

What Ver-
mine an-
noyeth the
Bees.

For they most of all delight in quietnesse: beware beside, that there be no hurtfull creatures nere them, as the Tode, that with his breath doth both poyson the Bee, and also draweth them to him, the Woodpecker, the Swallow, the Sparrow, the Stozke, Spidars, Hornets, Butter-flies, Serpents, and Mothes.

Driue from thy Hiues the hurtfull Lysart greene,
Keepe Throftles, Hennes, and other Birds vntrew:

And

And Progne, on whose brest as yet is seene
The bloodie marke of hands that Itys slew.

All these destroy thy Bees, and to their nests doe beare

Such as they take in flight, to make their young ones cheare.

Of such things as hurt your Bees, I will hereafter speake more, The valley better for the Bee, then the hill.
Where I shall shew you of their diseases and harmes: in the meane
time I will goe forward with the placing of them. The place
where they should stand, would rather be in the valley, then be-
rie high: but so as the rebound of no Ecco, doe hurt them, which
sound is verie noysome vnto them: so shall they flie with more
ease and speede to the higher places, and come laden downe a-
gaine with lesse trauaile. If the seate of the house will so suffer,
it is good to haue your Bees stand nere your house, and to be en-
closed with a hedge, or a pale: but on such side as they be not an-
noyed with the sent of linke, pyraie, or dunghill. The best stan-
ding, is within the sight of the master, by whose presence they
are safest kept. For their better safetie (if you feare them) you
may set them a yarde or more from the ground, enclosing them
with little grates left open against euery Hiue, or so lettised with
stone, as the Bee may easily come out and in, and escape both
Birds and Water: or if you list, you may make a little house by
for the Keeper, wherein you may lay your Hives for your
Swarms, and other necessaries mete for your Bees, setting
nere to the Hives some shadowing Trees for them to swarme
vpon, according to the Poets aduise.

And plant the Date tree neere, or pleasant Oliue tree, (be:

That with their floury branches sweet, thy hives may shadowed

That when the Captaines young, lead out their lustie swarms,

The pleasant shade may them allure, to shun the greater harmes.

Not needing for their ease, in places farre to roame,

When as they may more safely sit, and better speed at home.

If it may be, let them haue some faire Spring nere them, or else Faire wa-
ter neces-
sary for
Bees.
some water conueyed in pipe: for without water they can ney-
ther make Honey, Waxe, nor breed by their young: and there-
fore saith the Poet.

Haue fountaines sweet at hand, or mossie waters greene,

Or pleasant brooke that passing through, the meads is sweetly

And straight-waies after.

(scene.

The fourth Booke,

If either standing poole be neither to them nie,
Or running streame with hasty course, their dwellings passeth by
Cast boughes of Willow crosse, and mightie stones withall,

That may preferue the fainting Bee, that in the flood doth fall.

Round about the Bée-yard, and néere to the hives, set hearbes,
plants, and flowres, both for their health, and profit: specially
such as are of the swétest and delicatest saour: as Cithylus,
Lime, Cassia, Rosemary, Sauery, Smallage, Violets, Sage, La-
uender, Pyrre, wilde Parierum, wilde Tyme, Salme, swéte
Parierum, Saffron, Beanes, Mustard seed, Poppey, Bellilot, and
Roses. And if there lie Ground néere it for the purpose, sow it
with Rape séede, and Wácht wheat: for they wonderfully delight
in the flowres hereof. Plinie writeth; that Bées delight greatly
to haue Bzome flowres néere them: of trées, they most delight
in these. The Pine, the Willow, the Firre trée, the Almond, the
Peach, the Pearre-trée, & the Apple, and such as the flowres thercof
of be not bitter. Of the wilde forts; the Terebinth, the Lentise,
the Lind-trée, the Cedar, and the Bastholme. The best hony (as
Palladius saith) is made of Lime: the next of wilde Lime: the
third, of Rosemary. You must remoue from your Bées, the Pew
trée, Bor, and the Cornel: Plinie would also haue the Olive away.
Banish also all the kinds of Sporge: for with that, as also with the
flowres of the Cornell, they fall into a Fire and die. Besides you
must suffer no Wormewood, nor wilde Cucumber to grow
néere them, for they both destroy the Bées, and spoyle the honte.
And be cause the flowre, or fruit of Elmes doth specially hurt
them, therefore in such parts of Italy where plenty of Elmes
grow, the Bées do not long continue. Touching your hives, they
are made of diuers fashions, according to the manner of the coun-
try. Some are made round, some square, some threé foot in height,
and one in breadth, made very narrow toward the top, least the
Bées should ouerlabor themselues in filling of them. Some make
their hives of Lanterne horne, or Glasse, to the end (as Plinie
saith) that they may view the manner of their working, Varro
maketh mention of earthen hives well plaistered within and
without with good Dre-dung, so as the roughnes and ruggednes
cannot displease them: but for all that, the earthen hives be the
wozst that may be, because in Summer they be too hot, and in
Winter.

Hearbs
that Bées
delight
in.

Hearbs
noy some
to Bées.

Of the
Hive.

Winter too cold. The best hives, are those that are made of Cozke
 Wicker, or rindes of trees, because they keepe out both cold and heat:
 the next are such as are made of Straw and Wents matted toge-
 ther, two foot in bredth, and so much, or moze, according to the num-
 ber of your Bees in height. In some places they make them of
 one peece of wood, cut and hollowed for the nonce, or of toynd
 boozds, five or six foot in height, and these neither are too hot in
 Summer, nor too cold in Winter. Of these wooden hives, the
 best are those that are made of the Figge tree, Pine, Ashe, and
 Walnut, of such length (as I told you) and a cubit in bredth.
 Besides, they would be covered with either Lime, or Dre dung:
 for so (saith Florentine) you shall keepe them long without rotting.
 You must also boze them through slopewise, whereby the winde
 gently entring, may drie up all cobwebs, or such like noyances.
 You must alwaies haue good stoze of hives lying by you, that may
 be remoued, and easily carried where you list: for the fixed, or
 standing hives, be discommodious, as which you can neither sel, nor
 remoue: though Celsus seeme to commend the standing hives, be-
 cause they are neither subiect to stealing, nor burning, being made
 of Brick, or Loame. Your hives (as Columella out of Celsus doth
 teach) must stand vpon some table of Stone, a yard from the
 and ground, so much in bredth, so smoothed and plaistered, as nei-
 ther Load, Gnette, or Snake may craepe by: and in such order
 they must be placed as there may be betwixt euery one a little
 wall, or partition, being open both before & behinde. If you haue
 no such partitions, then place them so, as they be a prettie way
 distant one from the other, that in dressing and looking to any one
 of them, you shall not, nor hurt the other: for a little tumbling
 doth soone marre all their houses, and many times spoyle the
 Bees. It is enough to haue three raukes of them, one aboue
 the other: for the keeper shall haue enygh to doe, to ouer-
 looke the vppermost. The part where the Bee doth enter,
 must stand a little lower then the hinder part, so as the raine can
 not runne in, and the water (if there be any) may easily boide.
 And because cold doth moze annoy the Bee, then heate, you
 must arme your hives well behinde, against the hurt and bitter-
 nesse of the North winde, and let the Sunne come bountiffully
 to them in the Front. And therefore it is best for you to make

How you
 must place
 your hives.

The fourth Booke,

the holes where they come in and out, as small as you may, that they suffice onely for the bignesse of the Wax, partly for auoyding of cold, and partly to keepe the Cuckes, Beetles, Butterflies, Bats, Mothes, and such other hurtfull vermine, that would otherwise destroy the Combes: wherefore it is good you haue two or thre such small holes together in euery hieue, for the commoditie of the Bee, and restraints the enemye.

P V L L A R I V S. Well, I pray you let vs know when the Bee beginneth to labour, and when he ceaseth.

M E L L I S S E V S. Because I haue declared vnto you befoze their toile, their diligence, and order of their trauaile, I will now likewise shew you what time they begin to labour. In the Winter time, from the setting of the seauen starres, till the beginning of the spring, they keepe their houses, and come not abroad, by reason of the cold: in the spring, they come straight abroad, and from that time forwarde (if the weather let them not) they neuer rest day. First of all, they frame their Combes, and Ware, that is, they make their houses and chambers, whereof they make so many, as they thinke themselves able to fill: then fall they to breeding, and last of all, to making of honie. Their Ware, they make of the flowres, trees and plants: their honie, of the gummes and clamminesse of trees that are clewly, as Willow, Elmes, Rood, Juice, Gumme, and Rozen: Aristotle saith, they make their Combes of flowres, their Ware, of Gummes, and their Honie, of the dew of the Apry, that falleth chiefly at the rising of the starres, and that there is no honie made befoze the rising of the seauen starres, and their combes of flowres, and that the Bees do not of themselves make the honie, but onely gather the honied dew that falleth, because the keepers finde the Celles to be filled in some one, or two daies: and that the honie being taken away in the end of Summer, the hieues are not found to be furnished againe: though there be flowres enough at that time. This, and much moze heereof (saith Aristotle) whom Plinie following, affirmeth honie to be made of the Apry most of all, at the rising of the starres, chiefly the Dogge shining out early in the morning: therefore you shall finde in the morning betimes, the leaues of the trees bedewed with honie, as you shall likewise haue the Apprell, Hayze, and Beards, of such as haue bene early abroad.

When the
Beerefteth.
The be-
ginning
and order
of his tra-
uale.

In the morning, our Common people call it Manna, or Honey-Manna, cleaving to the leaues before the rising of the Sunne, as it were Snow, or rather Candied-Sugar. Whether it be the sweats or excrement of the Heauens, or a certaine spittle of the Starres, or a iuyce that the ayre purgeth from himselfe: howsoeuer it be, I would to God it were such as it first came from above, and not corrupted with the vapours and dampes of the earth. Besides, being sucked vp from the leaues by the Bees, and digested in their Hawes (for they cast it vp at their mouthes) and also distempred with the sent of the flowres, ill seasoned in the Hives, and so often altered and transformed, losing much of his heauenly vertue, hath yet a pleasant and speciall celestially sweetnesse in it. The best Honey is of Time (as I haue sayd before) and good likewise of Cichisus, of the Figge Tree very pleasant: Varro saith, they take not their sustenance, and their Honey both from one. A great part of their sode is water, which must not be far from them, and must be very cleane, which is greatly to purpose in making of good Honey. And because euery season suffereth them not to be abroad, they must at such times be fed, least they should then be forced to liue all vpon the Honey, or to leaue the Hives emptye. Some giue vnto them Water and Honey, sodden together in little vessels, putting into it Purple Iuall, through the which they sucke it, for feare of drinking too much, or drowning themselves: others, dry Figges, either stamped by themselves, or mingled with water, or the drosse of Grapes, or Raisins mingled with sweete Wine, and toasts made therewith, or with Honey: yea, I haue sene some vse (but in my fancie without reason) to giue them Bay Salt. Moreover, as the Bees require great looking to continually, and their Hives dayly attendance, so most of all they craue diligent regard, when they are about to Swarme, whereunto if you haue not a great good eye, they will bid you farewell, and seeke a new Pasture. For such is the nature of Bees, that with euery Prince, is bred a Common-wealth, which as soone as they are able to tranasle, doe as it were disdaine the gouernment and fellowshippe of the old Bee, which most hapneth when the Swarmes be great and lustie, and that the old Stagers are disposed to send abroad their Colonies: and therefore you shall by two tokens specially know when the new

The best
Honey of
Time.

Bees, their
Winter-
foode.

Going a-
way of
Bees, and
the tokens
thereof.

The fourth Booke,

ring leader of the dissention, whom you must take away. What the proportion and shape of the King is, I haue told you a little before, that is, something longer then the other Bees, and lesser winged, of a faire and glittering colour, smooth, and without sting. Howbeit, some of them be shagheard, and ill coloured, which are naught, and to be killed: Let the best (as he saith) weare the Crowne: Whomust himselfe also be deprived of his wings, if he be too bulke headed, and will alwaies be carrying his people abroad: so shall you, with the losse of his sayes, keepe him at home spight of his teeth, while he dare not for want of his wings venture out of the doores, and so shall he keepe his people at home. Dydimus writeth, that the Bees will neuer goe away, if you rub the mouth of your Hieue with the dung of a new calued Calfe. To the same end serueth it, if you stampe the leaues of wilde Oliues, and Garden Oliues together, and annoint the Hieues in the euening therewithall: or if you wash the Hieues and the walles with Honey sodden with water. When an old stocke is come to a small number, and that there be not Bees enough to furnish the Hieue, you must supply the want with a new Swarme, destroying the King of the first swarme in the Spring, so shall both the swarms dwell together in amitie with the old Parents, as shalbe shewed you hereafter, where I meane to speake of repaying the stocke. The Summer being past, ensueth the time for taking of Honey, to which harvest the trauaille of the whole tendeth. The time for gathering thereof, Columella teacheth to be then, when we perceiue the Drones to be driuen out, and banished by the Bees: for thence they Driue the drouishe Drone away. This Drone is an vntimely birth, and an vnperfect Bee, but very like vnto the Bee, saue that he is bigger bodied, lying alwaies idle in the hieue, not labouring himselfe, but feeding like a lubber on the sweate of his fellows, yet serueth he for the breeding and bringing vp of the young: which when he hath done, they thrust him out of the hieue. Varro appointeth three seasons for the taking out the honny: the first at the rising of the seauen Starres: the second in Summer: the third at the setting of the seauen Starres: this signe is when the hieues be heauie, and that they be double furnished. You may make your coniecture by the Bees, when they make great noise within, and when you see them stand dauncing, and playing.

The shape
of the
King.

To keepe
the King
at home.

Gelding
or driving
the Hieues.

The
Drone.

Time for
taking the
Combs.

playing at their doores, as also, if looking into the Hine, you perceiue the mouthes of the Combs to be covered with a Honey filme. Dydimus thinketh it to be the best time at the first haruest, the rising of the seauen Starres, or the beginning of May: the second, the beginning of Autumne: the third, the setting of the seauen Starres, which is about October: holwebeit, these times be not allwaies precisely to be obserued, but according to the forwardnesse of the season: for if so be you take the honey befoze the Combs be readie, they take it til, and presently leaue working. The time for gelding, or drying your Bees, is earlie in the morning: for you must not at none trouble your hives. For this kinde of gelding of your hives, you must haue two instruments for the nonce, a foote and a halfe long and more: the one of them must be a long knife of a good bredth, hauing at the end a bending crooke to scrape withall: the other must be plaine, and very sharpe, that with the one you may cut the Combs, and with the other scrape them, and draw out whatsoeuer dregges or filth you finde in them. And if your hives be not open behinde, you shall make a smoke with Galbanum, or dry dung, being put into an earthen pan made for the purpose, small at the one end, from whence the smoke shall come, and broad at the other, from which you shall blow by the smoke from the fire, in such sort, as Columella sheweth you. This pot you must suffer at the first, to smoke into the hieue, and afterward round about without, and so shall you driue them. He that medleth in this case with the Bees, must specially keepe himselfe from letchery, and drunkennes, and wash himselfe cleane: for they loue to haue such as come about them to be as pure and cleane as may be. They delight in cleaunesse so much, as they themselues doe remoue from them all filthynesse, suffering no filth to remain amongst their labours, raking by in heaps together the excrements of their owne bodics, which in the rainy daies, when they worke not abroad, they remoue and throw out of the hieue. If you set Garlick by them, they will sting all that come nere them. Their anger is chiefly allwaged by the presence of those that vse to tend them, at whose comming they ware milder, being well acquainted with those that are their keepers. If there be two swarmes in one hieue, and agreed together, they haue two sorts and manner of Combs, euery swarme obseruing

Bees hate
theeues
and vn-
cleane per-
sons.

The fourth Booke,

Fashioning
of the
Combes.

his owne order, but all the Combes so hang by the rookes of the hives and sides, as they touch not the ground where the Bees be chiefly to walke, as I said before of the building of their Combes. The fashion of their Combes, is alwaies according to the fashion of their hives, sometimes square, sometimes round, sometimes long as the hives are, in which they are fashioned as in a mould. Plinie writeth, that there were Honey-Combes found in Germanie, of eight foote in length: but howsoever they be, you must not take them all out, but must vse discretion in taking of them. Amongst our people in the first Wax-haruest (if I may so tearme it) they vse with their crooked knife, to pare away no more but the emptie Celles, till they come to those that be full, taking heed that they hurt them not: and this they doe in the Spring. In the latter haruest, that is, at the end of Summer, they take the Combes full of Honey, in such sort, (as I told you) burning the old Wax, and alway keeping and preserving the young swarmes. In the first taking, when the Meadowes are full of flowres, they leaue the first part of the Combes behinde: in the latter haruest, when winter approacheth, they leaue a third of their Combes for the sustenance of the Bee. But this quantittie cannot certainly be prescribed for all Countreies, but must be measured according to the abundance, or want of flowres. Dydimus Thales, thinketh good to leaue them a tenth of their Combes in the Summer time, if the Hives be very full, otherwise, according to the proportion: and if they be emptie, not to meddle with them. Plinie would not haue the Honey of the Spring-time (which he calleth flowre Honie) to be medled withall, but to be spared. Others leaue no Honie at all for them, because of the abundance of flowres that are then springing, which is the chiefe foundation of their Combes. Such as be skillfullest doe leaue the Wax a twelfth part of their labour: and this they do about thirty daies after the swarme, which they make an end of commonly in May. The old and the corrupt Combes, are for the most part at this time taken away: and the sound, and such as are filled with Honie, left. In taking of the Honie at the later time of the yeare, they vse to destroy the oldest Rocks, to saue the charges of feeding of them. This drining and gelding of Hives is not commonly vsed in the Countrey, but they rather, according to their customs,

custome, at the end of the yeres burne them, alledging for their authoritie an old English Proverbe of their owne :

Drive Bees, and loose Bees : burne Bees, and haue Bees.

And in some places they drowne them. When you haue thus spoiled your Hives, you shall carry all your Combes into some hand-some place, where you meane to make your Honey, and stoppe by all the holes and creuilles of the walles and windowes, as close as you may : for the Bees will be very busie to recouer the pray. Your Hives being thus drien, if there be any ill placed Combes at the entrie, you shall alter them, and place them in good order, so as the toppes stand downeward, so when you next geld them, you shall easlyer take out the olde Combes, and leaue the new, and the ware shall be the newer : which the older it is, the worse it is. Whensoever you take your Combes, looke that you straine out the Honey the same day, while they are hot and new. The Honie that you take at the full of the Moone (as Plinie saith) yeldeth most, and the fayrer the day is, the thicker it is. The Combes being taken out, let them rather be warme, then heated, least by ouer-heating them, you straine out the Ware with the Honie : afterward, put them into a good strong bagge, and with a Presse, or other Instrument made for the purpose, or with a Wicker Basket, presse out the Honie ; but see that befoze you presse it, you seuer from it such Combes, as haue in them young Bees, called with some, Grubbes, or any red or rustie drosse : for these with their euill tyece corrupt the Honie. When the Honie is thus strained out, it is put into earthen vessels, and suffered to stand vncouered a few daies, till it haue wrought, and cast by aloft all his Dregs, which you must often scumme off with a little sticke : but in many places they are not so curious, but tumble all together, and so sell it grosse as it is. The best Honie is alwayes in the bottome, as the best Dyle aloft, and the best Wine in the midst.

CHENO BOSCVS. What Countries yelds the best Honie, and which contant you the best ?

MELLISSEVS. The best Honie was in the olde time The best Honie. thought to be in Athens, and in Cycill : it is now thought very good that commeth from Moscoua, and the South-east Regions.

The

The fourth Booke,

The Hony at the beginning is thin as water, and after the straining, it woꝝketh like new Wine, and purgeth: at the twentieth day, it wareth thicke, and afterwards is couered with a thin rine, or filme, where the froth of the purging is gathered together. The best Hony, and least infected, the Bees doe gather from the leaues of the Oke, the Lind tree, and the Rood. There is thre sorts of Hony, the best kinde is that which is called Aurhim, or flowre-Honie, made in the Spring time: the next, is Summer hony, or hasty-hony, made in thirtie dayes after the tenth of June, when the Dogge begins to come in: the third is Heath-hony, a wilde kinde of hony, and not allowed, being gathered after the first showrs of Autumne, while the heath is flowred: and therefore like the Sandy hony. The best hony (as Diophanes saith) is cleare, yellowish, smoth in touching, & fine, roping, if it be drawn in length, and long sticking together, clammy, and hard to be got a sunder: the Hony that is of the woꝝt making, is to be boyled. Bread, if it be dipped in it, doth straight cozrupt it, and therefore take heed you put it not where bread hath bene. The fragments of the Coame that hath once bene pressed, being taken out, heated and strained againe, doe make a second Hony, which you must put vp, and keepe by it selfe, for spoyling of the other. Phaughtie, and counterfeit Hony is discerned by the burning, for ill hony burneth not cleare, as the said Diophanes witnesseth. The drosse that remaineth, after the pressing, after that you haue diligently washed it in sweet water, must be put in a brasse Caldron, and putting a little water thereto, melted vpon the fire, which when you haue done, you must straine the Ware through a Siue, or such like thing made of Straw, or Rushes: and after seeth it againe, and powring it into some vessell with water, from whence you may easily take it, make it vp in cakes, or what fashion you like. Plinie writeth, that the Coames must first be washed well, and afterward dꝝyed in the darke, for the space of thre dayes, & the fourth day set vpon the fire in a new earthen vessell, so as the Coames be couered with water, and then strained through a Siue: last of all, boyled againe in the same vessell, and the same water, and powred into vessels with colde water, hauing their sides noited with Hony. The Ware will be very white after it hath stood in the Sunne, and bene thus sodden: you shall make it blacke
with

Three
sorts of
Hony.

Bread cor-
rupteth
Hony.

The ma-
king of
Waxe.

with the Ashes of Paper, and being mingled with Vermillion, it will be red, and so other wise coloured as you list.

C H E N E B O S. If in the making of your Honey your Bees be almost consumed, what wayes haue you to repaire them ?

M E L. When as an olde stocke is come to be small, and that you are to furnish out the number, you must destroy (as I sayd) the new king in the Spring time, when there is a new brood in the Hiuie, that the new people without discord, may dwell with their olde parents. And if so be the Coames haue not yielded a new brood, you must take the dwellers of two or thre other hives, & put them into one, but so (as you remember before) to sprinkle them with some sweet licour, and so shut them vp with food conuenient for them, till they be fully acquainted, leauing but little breathing holes about the Hiuie, & keepe them thus enclosed thre dayes. Others doe vse to kill the elder king, but that Columella alloweth not : but if the king be very old, (the age of Bees shall shortly be shewed vnto you) and the people alwaies giuen to sedition, then shall you chosse a king from the Hiuies, that haue most number of kings. I told you before how you should make them agree, when you put two swarms together, lest they should destroy one another, that is, to take away the kings of the new swarms.

C H E N O B O S. What if the whole stocke be decayed by taking the Honey, or by sickenes, and diseases, will they breed againe : or may they be repayed by art ?

M E L. By both, though the breeding, and ingendring of Bees is very doubtfull with Aristotle, neither dare he after his long disputations, affirme any certaintie thereof : sometime he reciteth the opinions of others, some thinking that they are ingendred by copulation, the Drone being the male, and the Bee the female : other saying, that they bring forth young, but doe not ingender, but that they gather their yong ones, but from whence, they know not. Some say, from the flowres of Marioram : some, from the flowres of the Rodee : others from the Diuine flowres, because whensoever there is great plenty of Diuies, there is also great swarmes of Bees. There are againe that thinke the Drones to be so gathered, and the Bees to be bred onely of the kings : and a little after, he saith, The yong are the best breed, when the honey is made, they labour with their legs the Ware, and with their mouth

Bees decayed.

The repairing of them.

Breeding of Bees.

The fourth Booke,

mouth they cast out the Houie into the Cels, and hauing laid their young, they sit vpon them as Birds doe. The little Worme, or Grubbe, being thus hatched while he is small, lyeth crumpled vp in the Coame: afterward, sprawleth abroad by his owne force, and falleth to feeding, cleauing so to the Coame, as he seemeth to be tied. The brood of the Bée, and the Drone, is white, of which commeth little Wormes, that after grow to Bées, and Drones: thus much, and moze, saith Aristotle. In other places he would seeme to gather, that the Bées are ingendered of the kings, saying, that if this were not, there were no reason for such things as are committed in their government, and that the kings by good reason, remaine still in the Hue without any trauaile, as only bozne for breeding. Beside, they be greater, as though their bodies were purposely framed for generation, & they punish the Drones. It is not very likely that the children should punish the Parents, therefore the Bées are not ingendered of Drones. Besides, it is a great argument, that Bées are ingendered without copulation, that their broode lieth very small at the first, wrapped vp in the holes or Celles of their Coames, whereas all other Flies and Wormes that are bred by copulation, doe long ingender, and quickly lay in greatnesse, according to the kinde of the Worme. Plinie following herein Aristotle, affirmeth, that Bées doe sit as Hennes doe vpon their Egges: and that which is hatched, is at the first a small white worme, lying crosse the hole, and cleauing in such sort, as it seemeth to seede. The king is at the first, of a yellowish colour, as a chosen flowre, framed of the finest substance, neither is he bred a Worme, but with winges at the very first. The other common sort, when they begin to haue fashion, are called Plumphes, as the Drones, the Sircus, and the Cepheus, whose heads, if any man chance to pull off, they serue as a delicate food to the breeders. After a little time, they powre into their food, and sit vpon them (making a great noise, as it is thought, to procure a heat necessary for their hatching) till breaking a sunder the filmes that encloseth every one of them like an Egge, the whole broode commeth forth. Plinie addeth, that this was seene and obserued at Rome, in a Hue made of Lanterne hornes: the whole broode is finished in five and fourtie daies. As soone as they are brought out, they are taught to trauaile straightwayes with their dammes,

damnes, the young people waiting presently vpon their young king. There are sundry kings bred for failing, and when they come to age, by common consent, the foulest and vntowardest of them are destroyed. That there is two sorts, and what fashion they be of, I told you before.

C H E N O B O S. Let vs now heare some thing of their age. The age of Bees.

M E L L I S. Their age (they say) may thus be knowen. Such as are not aboue a yere olde, doe shine, and looke as they were newly oyled: the old ones be rough, chagayrd, wrinkled, loathsome, & ill fauored to looke vpon, holweist, for making of Coames, these are the best. Aristotle in his booke before mentioned affirmeth, that Bees liue five or seauen yeres; and that if a stocke continue nine or tenne yeres, the keeper of them hath good lucke. Plinie writeth, that one stocke was neuer seene to continue aboue ten yeres; not though you supply the places of the dead euery yere with new: for commonly in the tenth yere after the first hiving, the whole stocke dieth. And therefore to auoide the mischief of being utterly destitute, it is good to increase the number of your Hives with new Swarmes euery yere. And if so be your Bees, through sudden storme, tempest, or cold, lie dead vpon the ground, you must gather them together into a platter, or a broad bason, and lay them in your house toward the South, specially if the weather be good, after, cast amongst them Ashes of Figge tree wood, being something more hot; then warme, Shake them gently vp and downe, so as you touch them not with your hands; and so setting them into the Sunne, they will (as Varro sayth) quicken againe. To whom Columella subscribing, addeth, that such Bees as you finde dead vnder your hives, if you lay them vp in a dry place all the Winter, and bring them out into the Sunne in the Spring, when the weather is faire, and sprinkle them with the foresaid Ashes, they will recouer within a few houres. They that list, may proue it. I haue not hitherto tried it. Marcus Varro holdeth opinion, that Bees are ingendred sometime of other Bees, and some times of the body of a yong Bullocke putrified; reciting this Epigramme of Archelaus.

To reuiue Bees that be dead.

Making of Bees.

Of Steere that strangled is are children strangely bred,
Of Horse ingendred is the Waspe, and Bee, of Bullocke dead.
The Horses breed the Waspes, the Bullockes breed the Bees.

The fourth Booke,

For a young Dre, or Stære, being strangled, corrupted, and cast into some such place, where the putrified vapour can not breathe out, and soze of hearbs and flowres, agreeing with the nature of the Bees thrust into the body, as Time, Cassia, and such like, wherewith the vapour may be tempered, you shal hereof quickly haue Bees, euen as you may of the body of a horse likewise ordered, haue Waspes and Hornets. Virgill hath described both the manners of ingendring of Bees, and the first sozt, in these words.

This vsè, you vvonder vvould, doth please the Bee,
The Chaines vnchast of Venus they detest :
To file themselues vvith filthie lechery
They iudge vnmeet, nor will be, so increast.
But from the plants and pleasant flowres sweet,
They fetch their tender brood, and hence they get :
Both King and Court, and whatsoeuer's meet
To raise their vualles, and Empyre vp to set.

The other manners, or repairing of Bees by art, the same Poet eloquently thus touched.

But if your Bees doe happen all to die,
The breeders gone, that should their race renew :
His lesson learne, vvhole skilfull cunning hie,
Madè Bees, vvith bloud of Bullockes that he slew, &c.

Bees made
of a
Stære.

The manner how Bees are ingendred of a Bullobke, Virgill doth largely discourse out of Mago, and Demberitus. You must frame a little house fouresquare, about ten cubits in bredth, & as much in height, with foure windowes, on euery side one. A yong fat Stære being brought vp hither, his Nose, his Carcs, and all other open vents stopped, & filled with linnen, dipped in Pitch, must be beaten vvith numbers of clubbes to death, so as both the bones and the flesh, may be broken vvithout any blood: for of the blood commeth the Bè. Afterward, the house being dæpe strawed vvith Time, and the Bullocke laid vpon his backe, the dozes and the windowes must be close shut vp, and so plaistered, as there can no aire enter. Thre vvèkes after, the windowes must be opened on euery side, saue where the winde bloweth strongest, and the light and the aire let in: when it hath bene well cooled & refreshed, the windowes must be shut vp againe, and made as close as before: and being opened the eleuenth day after, you shal finde the house

full of Waxes, and nothing left of the Dre, saue the hornes, the hayze, and the bones: they hold opinion besides, that the Kings are engendzied of the braine, and the other Waxes of the body.

PVLLARIVS. I like not so costly comming by Waxes.

MEL. Of the same opinion is Columella: I tel you but the order of the old skilfull fellows, you may chouse whether you will try it.

CHENOBOS. I had rather you would tell vs what sicknesses and diseases they are subiect to, and how we may know the sicknesses, and in what sort to helpe them.

MELISSEVS. I will willingly shew you. The signes and tokens of their health, as if they be liuely, quicke, and many in number: if their workmanship be neatly and equally wrought: if they goe about their businelle cherefully, and if they looke faire and smothe. The signes of their not being in health, is, if they looke loathsomely, be rough and hayzie, except in the time of their labour, when they commonly looke like labourers, or be drowsie, or if you see them carrying out of dead carkasses, and following the cozses, after the manner of mourners, or that you heare no noyse, nor stirring amongst them. These signes when you see, Columella willeth you to giue them meate in little troughes of Rcedes, specially Honie sodden, and ground with Galles, or Roeses. You must also to heale them, perfume them with Galbanum, Keasins, or old strigges of Grapes. If the King happen to dye, the common people waile and mourne with great heauinesse, neither will they make any prouision for their owne sustenance: and therefore if you fixe them not, they will famish themselues.

Signes of
sickness
in Bees.

PISSINARIVS. With what diseases are they most vexed?

MELIS. They are many times infected with the Pestilence, against which you haue no other remedie, then to seuer the blues farre asunder. Their chiefest and early sickness, is in the beginning of the spring, when the Spurge and the Elme doe both flowze: for as vpon new fruits, so at their first comming abroad, entised with these new flowzes, being almost hunger staruen with the winter passed, they feed so greedily as they fall into a Flux, where of if they be not quickly remedied, they die. For Spurge doth loose the bellies of all other creatures, but the flowzes of Elme bringeth onely the Flux to the Wax. And therefore in such Countries, where there is great plentie of these trees, the bees continue

The diseases
of Bees,
and the
remedies.

The fourth Booke,

but a while. Columella teacheth you against this disease, to giue them Rosemary sodden with water and Honie: some againe vse to giue them the skale of men, or Bullocks: as also the graines of the Pomegranate beaten, and sprinkled with Wine or Acains, with the like quantitie of Hanna kneaded together, & giuen them in sharpe wine, boyled in an earthen vessell, and polvred into little Rôdes. Virgill describeth an hearbe, called Aumellus, with a yellow stalk, and a purple flowre, the iuyce of whose roote being sodden in old Wine, and strained out, is very good to be giuen them. Columella out of Higimus, teacheth to remedy them in this sort: First, to take out all the rotten and corrupt Combes, and to giue them fresh meate, & after to perfume them with smoke. It is good also to put to a decayed hie, a new swarme, as I said before. Many times they die of a disease which they call, The great deuouring, which hapneth when they haue made so much ware, as they thinke they shalbe able to fill, and afterwards, by storme and tempest, many of them be destroyed, so that they remaine sufficeth not to fill the Combes, whereby the emptie parts of the Combes becomeeth rotten, and so by little and little infecteth both the honte and the Bées: for which the onely remedie is, either to put in a new swarme to fill vp the cells, or if you haue no such swarms, to cut away part of the Combes before they come to be naught; which you must doe with a very sharpe knife, for feare of displacing the rest of the Combs. A cause beside many times of the death of the Bées, is their too much prosperitie, as when there are diuers yeres great abundance of flowres, & the Bées so busie in their feeding, that they forget their breeding, who ouer-wearying themselves with trauaile, they die, not leauing any broode behinde them. It is called Blapligonia, when either by sickness, frothfulness, or barrenness, they leaue no fruit behinde them. To remedy this: It is good every third day, to shut vp the hives close, leauing but very small holes, out of which they cannot craepe, so shall they be forced to looke to their broode, when as they cannot otherwise range abroad. Many times besides they are the cause of their owne deaths, when perceiuing their Honte to goe away, they feede too greedilie. Their owne honte doth also many times destroy them: for being touched with it on the backe, they are so lincd, as they cannot stirre: and Wyle doth not onely kill Bées, but also all other

other like creatures, Flies, and Wormes. They hate all filthie saouours, and King such as smell of Dyntiments : they are often besieged with Waspes, Hornets, and great Gnattes : the Swallow doth oftentimes spoyle them : the Woodpecker doth with his long tongue, thrust into the hieue, licke vp their honie : and diuers other Birds (as I haue said befoze) annoy them. The Mole bloweth them, and sucketh them vp at their owne doores, who sustaines no hurt by their Kinging. Shæpe are also hurtfull and troublesome to Bées, in whose Flæces they tangle themselves, as they can hardly get out. In the waste woods of Sarmatia, where they make their Combes in the hollow Firre træs, the Beare, for the desire of the Honie, climeth vp to them, and robbeth them. Against these Beares, the Bée-keepers vse to hang befoze their hieues great Haules, and Beetles, which the more angierlie the Beare shoueth aside, with the greater sway they come vpon his head againe, whereby the Bées are well defended. The saouour of Creuilles, if any man boyle them nere to them, doth kill the Bées. The Ecco is also a great enemy to them, that with her resounding, doth shake and feare them : and hurtfull to them is also the Pist. The Spider is also their deadly foe, and where they can preuaile, make hauocke of the hieues, setting their webs and nets in euery corner, to ouerthrow the poore Bée. The night Butterflie, that flyeth about the candle, is hurtfull to them two waies : for they both consume the Combes, and of their excrements left behinde them, is ingendred Mothes : in the very wood beside, brædeth a Worme that consumeth the Ware. These hurtfull Vermine, the careful Kieper must diligently labour to destroy and preuent, and loke that he plucke vp all such bushes and plants as offendeth them, not suffering any such to grow nere them, and to kéepe all hurtfull Cattell from them, letting them allwaies haue such things at hand, as they most delight in. For the Kieper hath worke enough to turne him to all the yære long : for after the twelfth of March, their Hieues must be opened and looked vnto, that all the rubbish, and filth of the Winter may be swept away, and the Spiders that spoyle the Combes plucked out, and that they may be smoked with smoke made of Dre dung, or linnen (as I spake of befoze) for smoke is of nature profitable to the Bées. And though it be troublesome for the time to them,

To keepe
Bees from
Beares.

Hieues purged in the Spring.

Smoke good for Bees.

The fourth Booke,

yet it is certainly very wholesome for them. The Wormes, besides Mothes, and Butterflies, must be killed, which cleaving like a pestilence to the Combes, doe fall away if you mingle with your dung the marrow of the Dre, and laying it upon the coales, make your smoke: with this order shall your swarms be kept still in health, and shall be better able to abide their labour: this kinde of purging them must be often used, from the Balents of April, till the fall of the leafe. The Keeper must keepe himselfe (as I said before) cleane from drunkennes, lethetic, and all unclean and strong sancuring scents: for they loue to be purely and faithfully looked vnto (as hath bene often said.) About an eight and forty daies after the entering of the Sunne into Aries, they begin to swarme, and at the same time do many stocks perish, that haue few and diseased Bees. About the same time are bred in the outermost part of the Combes a broode of a great bignes: which some count to be the Kings: others call them Bees, because they course and chase the Bees, and therefore thinke it good to destroy them. From the rising of the seauen Starres, that is, from the first Ides of May, till the tenth, or the twelfth of June, they vse to cast their swarms: at which seasons they must be carefully looked vnto for going away: from that time, till the rising of the Dog, or the coming in of the Dog daies, which is almost thirty daies, (as Columella saith) the haruest is both for Honie and Cozne.

In what sort the hives are to be diuen and gelded, it is shewed before: but at this time, and till the twelfth of September, the hives must be opened euery tenth day, & smoked. The hives being thus smoked, you must refresh the Bees, with sprinkling and casting into the emptie parts of their hives, very fresh and cold water: and if any thing remaine, not washed away, you must sweepe it out with a Goose wing. Besides, the Mothes, if they appeare, must be swept away, and the Butterflies killed, which dwelling in the hives, are commonly a bane to the Bees: for they both eate vp the Ware, and with their dung doe breede a kinde of Worme that they call Vine-mothes. These Butterflies, as Columella teacheth, you may when the Gallowe bloweth (at which time there is greatest number of them) destroy in this sort. You must haue a vessell of brasse, very high and straight, narrow necked and mouthed, in the bottome whereof you must haue a light, and set it in

Oesti.

Times for
swarming.

To destroy
Butterflies.

the euening nere vnto your hives, and you shall see all the Butterflies straightwaies fall to the light, and while they play about the flame, they burne themselves, while they can neither get by, by reason of the straightnes, nor shun the fire, by meanes of the brazen walles. Betwixt the rising of the Dog, and of the Bearward, which are almost fiftie daies, you must take good heed your Bees be not spoiled by Hornets, which at that time lie in waight for them, euen at their owne doores. After the rising of the Bearward, about the twelfth, or fourteenth of September, is the second harvest of your Honey: from that time, till the setting of the seauen starrs, which is about forty daies, the Bees do prouide for their winter store, of the flowers of Heath, Tamariske, and other bushes and shrubs, of which prouision you must take nothing, lest you discourage them, & driue them away: from the setting of the seauen starrs (which is about the entrance of Nouember) the beginning (if we may believe Plinie) of winter. The Bees liue all the winter long vpon such store of Honey as they haue laid by: at this time, the Hives must be opened & cleansed of whatsoeuer filth is in them, and diligently ordered, for during the winter time, your Hives must neither be opened nor stirred, and therefore in the end of Summer, while the weather is yet milde and temperate, your Hives being made cleane in some sunny day, see that you thrust vnder them certaine close couers that may reach to the very bottom of the Coames, not leauing any voide space, whereby the Hieve shall be the warmer. When you haue this done, close by euerie rift and open place with Clay, and Bullockes dung mingled together, dawbing it all ouer without, leauing onely a little hole to come in and out at. You must arme them also against the cold tempest, with good couertures of Straw and Boughs. Some vse to put in the Hives small Birds being drawn, which with their feathers keepe the Bees warme all the winter, and therewith, if they happen to lacke food, they feed themselves sufficiently. Peac, it hath bene seene they haue so fed vpon them, as they haue left nothing but the bare bones: howbeit, as long as their Honey sufficeth, they neuer meddle with the birds. It is very good and necessary (as I told you before) to set them meat in little Troughs or Rades, to defend themselves against famine. When Winter is past, in the space of forty daies, they make an end of all their

Not stirring of Bees in Winter.

Honie, except their Keeper deale the moze liberally with them. It hath often also bene seene, that their Combes being emptye, they haue continued fasting, till the Ides of Februarie, and clea-
uing to the Combes, as if they were dead, yet haue retayned their life: but least they should lose it altogether, it is good to poyze them in some swæte liquours by little pipes, whereby they may sustaine their lines, till the Swallow with her appearing, promise a welcomer season.

After which time, when the weather will suffer them, they begin to seeke abroad for themselves: for after the Sunne is in the Equinoctiall, they neuer rest but trauell painefully every day, and gather flowres, and necessaries for their breeding.

Besides, because few places are so fruitfull, as to yeeld flowres both Summer and Winter: therefore in such places, where after the Spring and Summer (at which times, both Beanes, Rapes, Willows, and other plants and hearbs, in every place do flowre) the flowres doe fayle, they are carried of diuers (and that in the night, as I told you before) into such places, whereas there is good store of late flowring hearbs, as Time, Wilde Parierum, and Sauerie, wherewith they may be fed, and gather food at their pleasure: and as Columella writeth, that Bees in the olde time, were brought from the fields of Achaia, to the pastures of Athens, and so transpoted in diuers other places. So may we with vs carry them from places where the flowres be consumed in the Spring, to the Summer flowres, as Clouer, and such other: and after that, about the end of the Summer, to places furnished with Heath, Tamariske, and such other late bearing flowres. For the auoyding of this inconuenience of carrying from place to place, I will shew you in what sort I haue ordred my Bee-yard at home. And because Gaster Hersbach hath shewed you before in his Garden many good hearbes, and yet not whereto they serue, I will shew you a few plants, that I haue set about my Bees, seruing both for their commoditie, and the health of my household: I haue chosen of a great number, such as be most necessarie, & of greatest vertue: whose speciall vertues, and wonderfull workings, giuen onely by the most gracious and bountifull framer of the world, and being as it were sucked and draloue out by the careful toyle and diligence of the Bee, must needs adde a greater perfection to
their

their honic and their ware. I haue first enclosed the Ward where my Bees stand, with a Quickset-hedge made of Black-thorne and Hony-suckle: the one of them seruing the Bée with his floures at the beginnieg of the Spring; and the other at the latter end of Summer. The first, the Black-thorne beareth a pleasant white floure, so much the welcomer to the Bée, as it is the very farewell of the winter: for he commonly flourezeth not till the winter be past. These floures newly gathered & steeped all a night in the best and strongest wine, and afterwards distilled in Balneo Marie, being drunke, helpeth any paine in the sides, as hath bene certanlye proued. Tragus the Germane confesseth, that with this onely water he hath cured all maner of paines about the stomack, heart, or sides. Wine made of the Sloe, and preserued vntill Iulie, or August, when the bloody Flie most raigneth, is a soueraigne medicine against it. The other, the Hony-suckle, or the Woodbine, beginneth to floure in Iune, & continueth with a passing sweet saour, till the very latter end of summer. The water thereof distilled and drunke, two or thre daies together at times, allwageth the heate of the stomacke, helpeth the Cough, and shortnes of breath. Rags of linnen dipped therein, and applyed, doe heale any heats of the Cies, or Liuer. Next vnto my hives, I haue planted the sweet hearbe Melissa or Apiastrum, called in English, Balme; with a square stalk, a leafe like a smooth Pettle, and a yelloe floure, and groweth almost in euery hedge, an hearbe well knowne to the old women in the Countrie, and greatly desired of the Bée. This Melissa, or Balme, sodden in white Wine, and drunke two or thre mornings together, purgeth the best, helps the short-winded, comforteth the heart, driueth away the dumpish heauinesse, that proceedeth of Melancholy, helpeth the Falling-sicknesse, and almost all other diseases: being chopped small, and steeped a night in good white wine, and afterwards distilled, is greatly commended, not onely in deliuering Women from their pangs and griefes of the Mother, being drunke to the quantitie of thre or foure Sponefulls, but also cureth the paines or fainting of the heart, called commonly, The passion of the heart. Cardanus greatly commendeth this hearbe, for the comforting and renewing of a decayed memory: and affirmeth, that it is a causer of sweete & pleasant sleepes. Next vnto this haue I growing that sweete and precious hearbe,

Blacke-thorne.

Woodbine

Balme.

The fourth Booke,

Angellica. Angellica, whose seedes I first receiued from that vertuous and godly Lady, the Lady Golding in Kent, a Gentlewoman that setteth her whole felicitie in the feare and seruice of the Almighty: this Hearbe is in flowre, seed, leafe, stalke, and saour, so like vnto Louage, as they may hardly be discerned the one from the other, the leafe doth in a manner resemble the Figge leafe, sauing that it is moze iagged, and indented round about. If any man be suddenly infected with the pestilence, feuer, or immoderate sweate, let him take of the root of this Angellica in powder, halfe a dram, and putting to it a dramme of Treacle; mingle them together with thre or foure spoonfulls of the water distilled of the said root, and after he hath drunke it let him lie and sweate, fasting for the space of thre houres at the least: this doing, by the helpe of God, he shall escape the danger: the roote steeped in Vinegar, and smelt vnto, and the same Vinegar some times drunke fasting, doth preserue a man from the pestilence: to be short, the root and the water thereof, is soueraigne against all inward diseases, it scowreth away the collections of a Plurisie beginning, helpeth Ulcered and corrupted Lungs, and is good against the Chollicke, Strangurie, and restraint of Womens Purgations, and for any inward swelling, or inflammation, the iuyce thrust into a hollow tooth, allwageth the paine, the water dropped into the eare, doth the like: the sayd iuyce and water put into the eye, quickeneth the sight, and taketh away the thin skimmes and rines that couereth the eye. Besides, a most present remedy in all deepe and rotten sores, is the iuyce, the water or the powder: for it clenseth them, and couereth the bone with good flesh. It was called in the old time Panacea, or Healeal. Pert vnto this Angellica, haue I growing in great plentie, Cardus Benedictus, or blessed Thistle, which the Empirickes, or common Proalisers, do commend for sundry and great vertues, affirming that it was first sent out of India, to Fredericke the Emperour, for the great vertue it had against the Headach, or Megrime, being eaten or drunke. Likewise, they say, it helpeth against the dazing, or giddinesse of the head, maketh a good memorie, and restoreth the hearing. For the proofe of his great force against poyson, they bring forth a young maiden of Pauy, that hauing vnwares eaten of a poysoned Apple, and therewithall so swollen, as no Treacle, or medicine could

For want
 of Treacle,
 you may take
 the whole
 dramme.

Cardus
 Benedictus.

cure

cure her, was at the last restor'd to health, by the distilled water of this Thistle: and likewise that a boy, into whose mouth as he slept in the field, happened an Adder to creepe, was saued by the drinke of this water, the Adder creeping out behinde, without any hurt to the childe. In fine they affirme, that the leaues, iuyce, seed, and water, healeth all kinde of poysons, and that the water hath healed a woman, whose breast was eaten with a Canker to the very ribbes. I haue also set into this little peece of ground, great store of the hearbe called Namularia, or Penigrasse, which creepeth close by the ground, hauing vpon a long string little round leaues, standing directly one against the other, and a yellow flower, like the Croc-foot. It is a soueraigne hearbe for healing of wounds, not onely outward and Greene wounds, but also inward sores and vlcers, specially of the Lungs, whereof there hath bene good proofe. Tragus affirmeth, that he hath seene dangerous and desperate wounds cured with this hearbe, being boyled with Honey and Wine, and drunke. It healeth eruclcerations of the Breast and Lungs, and may be well giuen to those that Cough, and are short breathed, and to little children diseased with the drie Cough, who by reason of their tender age may take no stronger medicine. I haue seene good plentie of it growing by the shadowie ditches, about great-Beckam in Kent. I haue beside there growing, Scabious, an hearbe that groweth commonly in Cozne, with a jagged lease, lying round vpon the ground, and thrusting out in Summer a long stalk, with sundry branches, the flower growing in blew knobs, or tuftes, like hony Combes. This hearbe being sodden with Wine, and drunke, doth helpe the Plurisie, against which diseases, the women of the countrey, that many times take vpon them to be great Doctresses in Physicke, do still the water thereof in May, and giue it to be drunke at each time, two or thre spoonfulls, not onely against the Plurisie, but against inward imposternes, coughes, and all diseases of the breast. Against imposternes, diuers (as Tragus writeth) doe make this composition, they take a handfull of Scabious, the hearbe dried, of Liquerisse cut small an ounce, twelue Figges, Fenell seed an ounce, Aniseed as much, Oras halfe an ounce, these they lay a night in water: the next day they boile them, till a third part be consumed, and after making it sweet with Sugar,

The fourth Booke,

of Honie of Roses, they giue it warme in the Morning and Eue-
ning, wherewith they say, the imposterne is ripened, made soft,
and coughed out.

PVLLARIVS. I remember, that passage by the house of
that Honourable Baron, the Lord Cobham (whose house you
shall seldome see without great resort, by reason of his noble dis-
position, and honourable intertainment that hee giueth to all
comainers) I chanced to see in his Parke at Cobham, a certaine
Veronica. hearbe called Veronica, whereof I haue heard vertues.

MELLISSEVS. That can I also shew you amongst
the hearbes that I haue about my Bees : it is called of some Feu-
crium, and Veronica, as it is supposed of a certaine French King,
who was thought by the iuyce thereof, to be cured of a great Le-
prosie, it is called in English Fluellin : it creepeth low by the
ground, as Penigrasse doth, and beareth a leafe like the Blacke
thorne, with a blewish speckled flowre, with a seed inclosed in little
pouches, like a shepheards purse, and groweth commonly vnder
Oakes, D. Hieron writeth, that the ioyce thereof, is marueilous
against the Pestilence, and contagious ayres, and that he him-
selfe hath oftentimes proued. The water of the hearbe steeped
in white Wine and distilled, there withall he hath cured sundry
times, hot burning and pestilent Feauers, as well in young
men, as in old, Hieron Transchweyg, commended it to be singu-
lar good for all diseases of the Splene : the shepheards of Germa-
nie giue it with great profit made in powder, and mingled with
Salt, to their Cattell diseased with the Cough : being steeped
in Wine and distilled, it is a most present remedie in all pesti-
lent Feauers : being giuen two ounces thereof with a little
Trecle, and after laid warme in bed, and well couered, it expel-
leth the poison by sweat, and driueth it from the heart. The wa-
ter of this hearbe taken certaine daies together, two ounces at a
time, helpeth the turn-sicke giddinesse of the head, voideth
fleame, purgeth blood, soarmeth the stomacke, openeth the stop-
ping of the Liuer, healeth the diseases of the Lungs, and the
Splene, purgeth the Vaines, the Matrice, and the Bladder, it
driueth out sweat and venome, helpeth the Fandise, the stone
of the Reines, and other grieuous diseases. You shall also haue
amongst these plants of mine, the good sweet hearbe Cariphilata,

oz of some Benedicte : of others, Sanamanda, called in English Auens, whose roote whether it be greene, or old, resembleth the Cloue in saour : the leafe is jagged, rough, of a darkish greene, and not much vnlike to Agrimony : the flowre is yelow, and after the falling thereof, leaueth a prickly knoppe like a Hedgehogge : the roote the longer it hath growen, the sweeter it is : the speciall vse of this roote in some countries, is to be put in Wine in the Spring-time : for it maketh the Wine to taste and sauour very pleasantly : which Wine, as many hold opinion, doth glad the heart, openeth the obstruction of the Liuer, and healeth the stomacke that is overburdened with cold and grosse humours : this roote boiled in Wine and giuen warme, doth cease the grieue of the stomacke, or the belly, proceeding of cyther cold, or winde.

Hard by this hearbe, haue I planted the great water Berony, called of some Ocimastum, of Mathiolus, Scrophularia Maior : it hath a great square stalk, & bigge leafe indented round about : the flowre is in colour Purple, and in fashion like the Shell of a Snail : it flowreth in June and July, and groweth most by waters in shadowie places. Fragus teacheth to make a speciall oyntment thereof, seruing against all Scabbes and Sores, where he saith, he hath seene people so mangie, as they haue seemed euen Lepers to be cured : his oyntment is this, Take the hearbe, rootes, and all, gathered in Day, washed and well cleansed from all filth, stampe it, and straine out the iuyce, and keepe it in a narrow mouthed Glasse well stopped, wherein you may keepe it a whole yeere, and whensoever you list to make your oyntment, take of the same iuyce, of Ware, and Oyle, of each a like quantity, and boyle them together vpon a Chafindish of coles, stirring them well, till they be incorporated, and so vse it. Mathiolus teacheth to make a singular oyntment thereof against kernels, the Kingscull, and the Hemerodes : his order is this. You must gather the rootes in the end of Summer, and after that you haue made them very cleane, stampe them together with fresh Butter, and putting them into an earthen vessell close couered, set them by in some moyst and dampish place, suffering it there to remaine for the space of fiftene dayes : afterwards, let the same Butter be melted with a soft fire, and being well strained, lay it by for your vse. There haue I also another excellent hearbe, called

The fourth Booke,

Cardiaca. called in Latine *Cardiaca*, I know no name for it in English, except you will call it *Mother-wort*: and indeed it is the very true *Mother-wort* it groweth by high waies, and neere to stone wals, it hath a leafe something like a *Pettle*, but moze indented, the leaues next to the roote being iagged like the *Croc-foote*: it groweth bushing with many stalkes, I haue scene it plentifully in *Surry*, and some stoze of it about *Waldstone* in *Kent*: it is of great force against any sicknesse of the heart, whereof it taketh his name: it helpeth *Crampes*, and *Palsies*, it cleanseth the bzeasse from fleame, it killeth *Wormes* in the bodie, openeth cold obstructions, prouoketh bzeine, and *Womens* courses: being made in powder, and a sponcfull of it giuen in *Wine*, it wonderfully helpeth the hard labours of *Women*.

Betonic. **C H E N O B O S C V S.** I *Peruaille* you haue no stoze of *Betony* also: for I haue scene the *Bees* labour diligently vpon it, and haue heard, that it is of great vertue.

M E L L I S S E V S. I haue great stoze indeed of it, but that I forgot to tell you of it, it is knowen so commonly, as I neede not to descrie it vnto you: whosoever is troubled with breaking of winde, and weakenesse of stomacke, and those whose stomacks retaine not their meate, or whosoever scæles slower belching from thier stomacks, and is therewith often troubled, let them continually vse *Betony*, eyther the hearbe or flowze boyled in *Wine*, or the water distilled, or the *Conserue* (as they call it) of the flowzes. And if so be you lacke the *Conserue*, or the water, you may vse the drie hearbe in powder, eyther by it selfe, or with hony: women that are troubled with the *Mother*, may vse this hearbe for their remedie. To be hozt, the flowze, leafe, and roote of *Betony* sodden and drunke, or howsoeuer you will, in *Electuarie*, *Conserue*, *Sitrop*, *Pocion*, or *Powder*, as you list to take it, is singular good in the diseases of the *Stomacke*, *Liuer*, *Spleene*, *Kidnies*, and *Bladder*, it trieth the *Matrice* from obstruction, and draweth from thence all hurtfull moistures. For consumptions of the *Lungs*, *Coughes*, *Dropsies*, continuall and putrified *Feuers*, proceeding from the *Stomacke*, boile the leaues and flowzes of *Betony* in honied water, and you shall haue present helpe. Thus haue I shewed you what kinde of hearbes I haue planted about my *Bees*, to the end they should haue foode at hand of the

the sweetest, and the wholesomest: I haue shewed you also the vertues of the hearbe, the flower, and the water, that you may vse it for your olone commoditie: only this warning I giue you, that you doe not distill them, as the unskillfull doe, in Stilles of Lead, Tinne, and Brazze, which poisoneth and spoileth the water, but in Glasse Stills, set in some vessell of water vpon the fire, whereby your water shall be most perfect and wholesome. The difference of these two distillings, appeareth plaine: for example, in Wormewood, which if you distill in your common Stillatores, the water commeth out sweet, hauing gotten a corrupt qualitie by the nature and corruption of the Metall: whereas, if you doe it in Stills made of Glasse, looking that the Glasses be well closed round about, your water shall haue the very taste, saour, and proprietie of the Hearbe. With these Glasse Stills you may so order your fire, as you may draw out of euery hearbe, the Water, Spirit, Oyle, and Salt, to the great comfozt of sicke and diseased persons. I set besides great plenty of Sainozp, Yeath, Camarlske, and without the Bopard, Worme, in whose flowers the Bee much delighteth. I keepe you here peradventure too long in so small a matter.

Small is the thing, yet small is not the gaine.

If gracious Gods permit, and Phœbus not disdaine.

As the Heathen Poet writeth: but I will here make an end of my talke, that hath perhaps bene thought too long.

F I N I S.

Soli Deo gloria.



Olde English Rules , for
purchasing Land.

*Who so will be wise in purchasing,
Let him consider these points following.*

First, see that the Land be cleare,
 In title of the seller.
And that it stand in danger
 Of no womans Dowrie.
See whether the Tenure be bond or free,
 And release of euey feoffee.
See that the seller be of age,
 And that it lie not in morgage.
Whether a taile be thereof found,
 And whether it stand in statute bound.
Consider what seruice longeth thereto,
 And what quitrent thereout must goe.
And if it be come of a wedded woman,
 Thinke thou then on couert baron,
And if thou may in any wise,
 Make thy Charter with warrantise.
To thee, thine heyres, assignes also,
 Thus should a wise purchaser doe.



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