

WAY TO GET
WEALTH

MARKHAM

1625







4074 (1) containing 4068, 4072, 4073
B + 3686 (1)

4068

I MAHAM (Gervase)

Cheape and good husbandry.

London: T. S [name] for R. Jackson. 1623

4073

S.T.C. 338. Part mly. pp - 179

II MARKM (Gervase)

Countray contentments

London: J. Ble] for R. Jackson. 1623

S.T.C. 7343

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III MARKM (Gervase)

Markhams farwe to husbandry.

London: M [Lester] for R. Jackson. 1625

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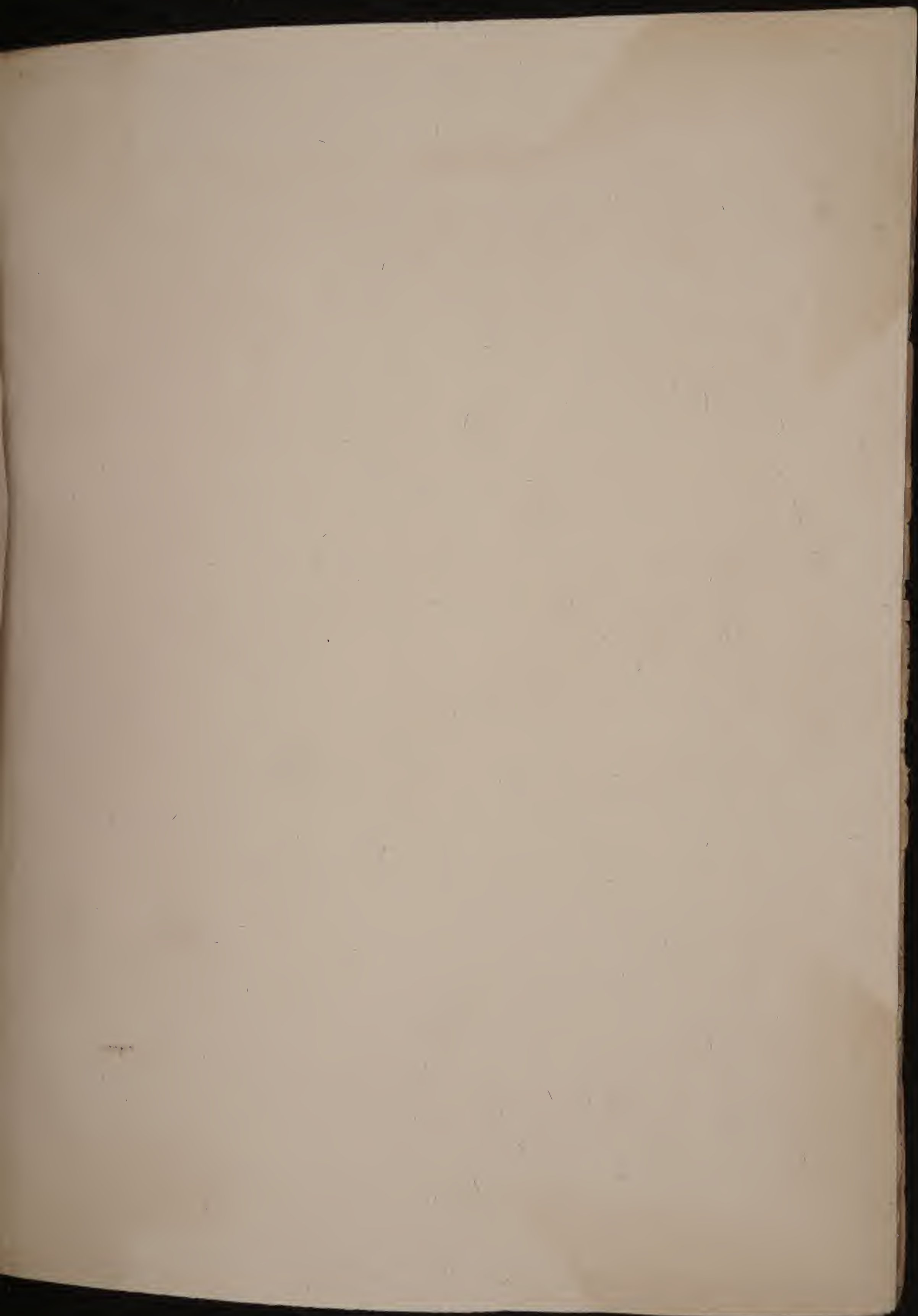
IV LAWSON (William)

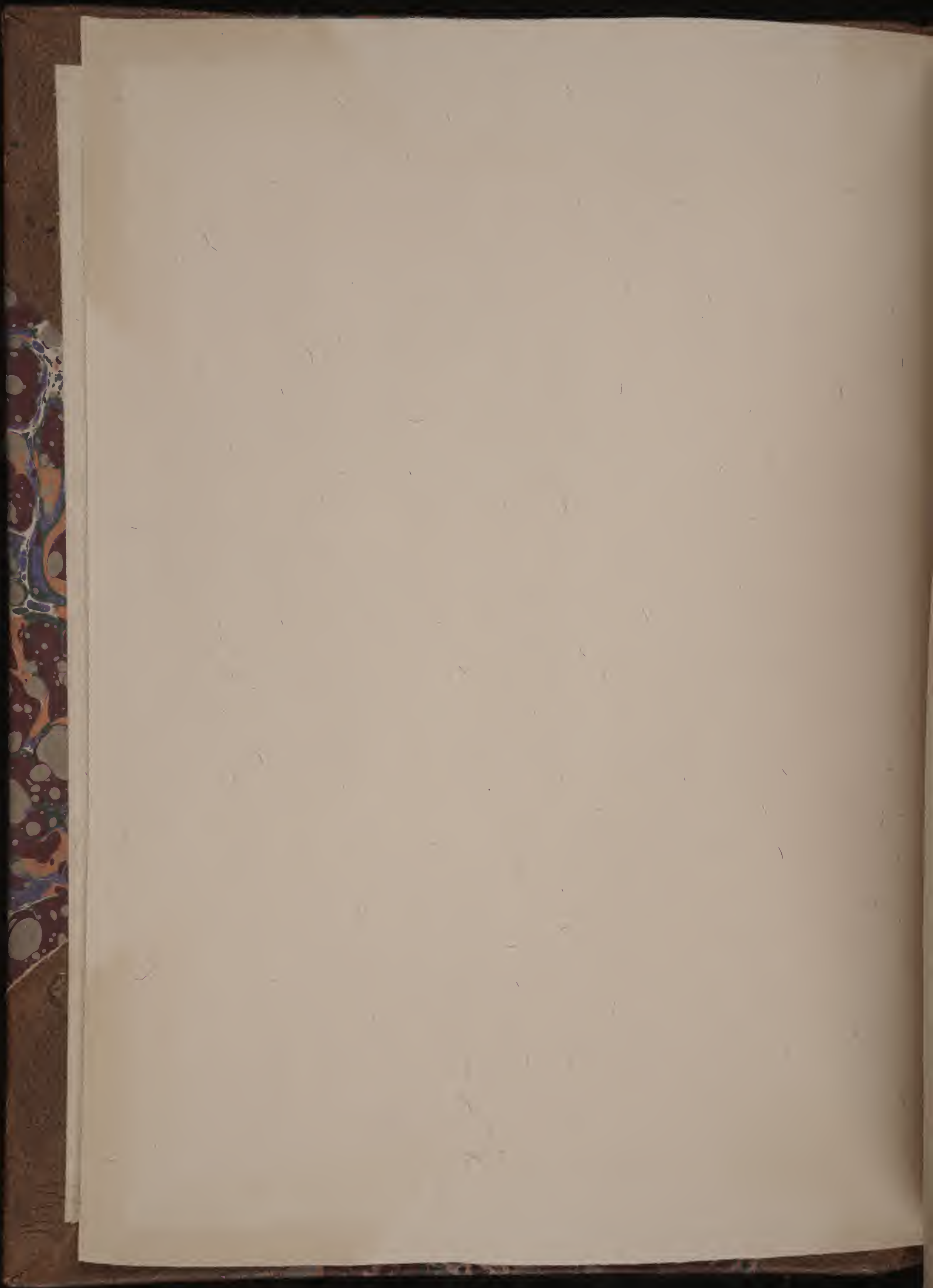
A new orchard a garden.

London: J [Aitland] for R. Jackson. [1623]

S.T.C. 150

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14

A NEW ORCHARD and Garden :

O R

The best way for planting, grafting, and to make any ground good, for a rich Orchard : Particularly in the North, and generally for the whole kingdome of England, as in nature, reason, situation, and all probabilitie, may and doth appeare.

With the Country Housewifes Garden for herbes of common vse, their vertues, seasons, profits, ornaments, varietie of knots, models for trees, and plots for the best ordering of Grounds and Walkes.

A S A L S O

The Husbandry of Bees, with their severall uses and annoyances, all being the experience of 48. yeeres labour, and now the second time corrected and much enlarged, by *William Lawson*.

Whereunto is newly added the Art of propagating Plants, with the true ordering of all manner of Fruits, in their gathering, carrying home, and preservation.

Skill and paines bring fruitfull gaines.



Nemo sibi natus.

A

NEW ORCHARD

and Garden

1700

The first year of planting and raising

of the first year of planting and raising

of the first year of planting and raising

of the first year of planting and raising

of the first year of planting and raising

of the first year of planting and raising

of the first year of planting and raising

of the first year of planting and raising

of the first year of planting and raising

of the first year of planting and raising



John Smith's Garden



TO THE RIGHT
VVORSHIPFULL,
SIR HENRY BELOSSES
Knight and Baronet.

Worthy Sir,



Then in many yeeres by long experience I had furnished this my Northerne Orchard and Countrey Garden with needfull plants and vsfull herbes, I did impart the view thereof to my friends, who resorted to me to conferre in matters of that nature, they did see it, and seeing it desired, and I must not denie now the publishing of it (which then I allotted to my priuate delight) for the publike profit of others. Wherefore, though I could pleade custome the ordinary excuse of all Writers, to chuse a Patron and Protector of their Workes, and so shroud my selfe from scandall vnder your honourable fauour, yet haue I certaine reasons to excuse this my presumption: First, the many courtesies

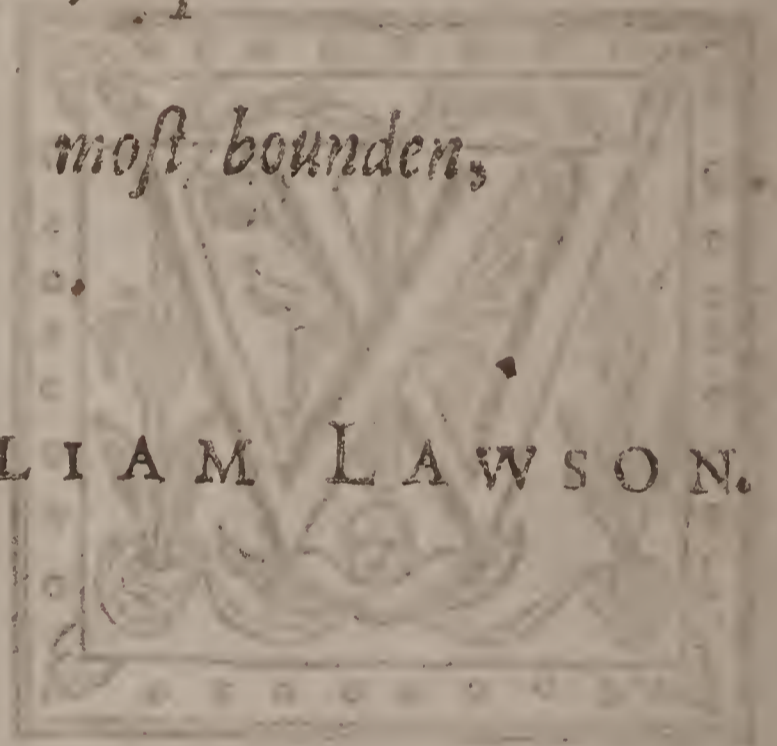
The Epistle Dedicatory.

tesies you haue vouchsafed me. Secondly, your delightfull skill in matters of this nature. Thirdly, the profit which I receiued from your learned discourse of Fruit-trees. Fourthly, your animating and assisting of others to such endeouours. Last of all, the rare workes of your owne in this kinde: all which to publish vnder your protection, I haue aduentured (as you see.) Vouchsafe it therefore entertainment, I pray you, and I hope you shall finde it not the vnprofitablest seruant of your retinue: for when your serious employments are ouerpassed, it may interpose some commoditie, and raise your contentment out of varietie.

Your Worships

most bounden,

WILLIAM LAWSON.





THE PREFACE

to all well minded.



Art hath her first originall out of experi-
ence, which therefore is called the Schoole-
mistresse of fooles, because she teacheth
infallibly, and plainly, as drawing her
knowledge out of the course of Nature,
(which neuer failes in the generall) by
the senses, feelingly apprehending, and

comparing (with the helpe of the minde) the workes of nature;
and as in all other things naturall, so especially in Trees: for
what is Art more than a provident and skilfull Collectrix of
the faults of Nature in her particular workes, apprehended by
the senses? As when good ground naturally brings forth
thistles, trees stand too thicke, or too thin, or disorderly, or
(without dressing) put forth unprofitable suckers, and such
like. All which, and a thousand more, Art reformeth, being
taught by experience: and therefore must we count that Art
the surest, that stands upon experimentall rules, gathered by
the rule of reason (not conceit) of all other rules the surest.

Whereupon haue I of my meere and sole experience, without
respect to any former written Treatise, gathered these rules,
and set them downe in writing, not daring to hide the least ta-
lent giuen me of my Lord and Master in Heauen: neither is
this iniurious to any, though it differ from the common opinion

The Preface.

in diuers points, to make it knowne to others, what good I haue found out in this facultie by long triall and experience. I confesse freely my want of curious skill in the Art of planting. And I admire and praise Plinie, Aristotle, Virgil, Cicero, and many others for wit and iudgement in this kinde, and leaue them to their times, manner, and seuerall Countries.

I am not determind (neither can I worthily) to set forth the praises of this Art: how some, and not a few, euen of the best, haue accounted it a chiefe part of earthly happinesse, to haue faire and pleasant Orchards, as in Hesperia and Theflaly, how all with one consent agree, that it is a chiefe part of Husbandry (as Tully de senectute) and Husbandry maintaines the world; how ancient, how profitable, how pleasant it is, how many secrets of nature it doth containe, how loued, how much practised in best places, and of the best: This hath already beene done by many. I only aime at the common good. I delight not in curious conceits, as planting and graffing with the root upwards, inoculating Roses on Thornes, and such like, although I haue heard of diuers, proued some, and read of moe.

The Stationer hath (as being most desirous with me, to further the common good) bestowed much cost and care in hauing the Knots and Models by the best Artizan cut in great varietie, that nothing might be any way wanting to satisfie the curious desire of those that would make use of this booke.

And I shew a plaine and sure way of planting, which I haue found good by 48. yeeres (and moe) experience in the North part of England: I preiudicate and enuie none, wishing yet all to abstaine from maligning that good (to them vnknowne) which is well intended. Farewell.

Thine, for thy good,

W. L.

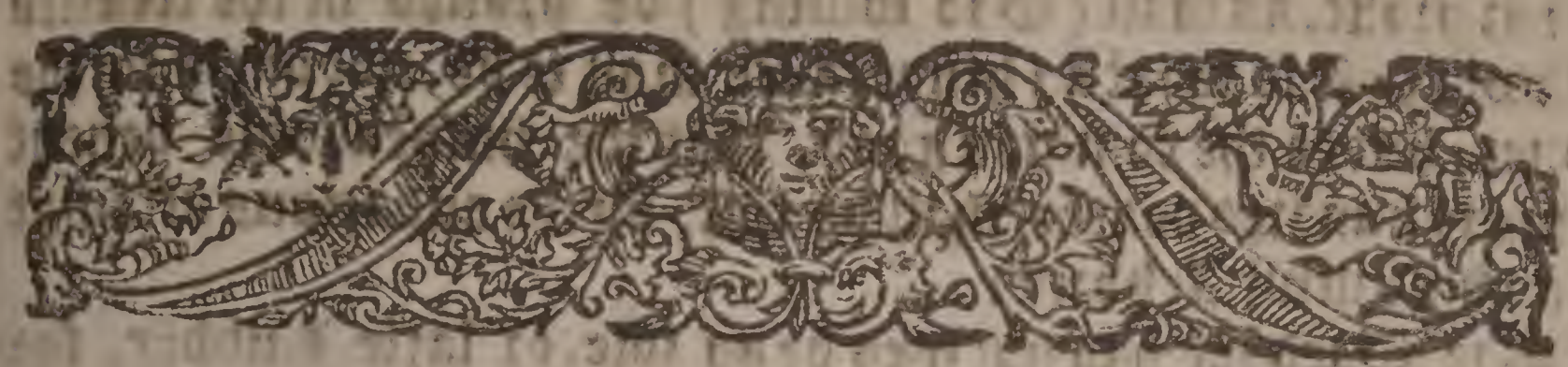


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THE BEST, SVREST,
AND READIEST WAY TO
make a good Orchard and Garden.

CHAP. I.

Of the Gardner, and his Wages.



Whoever desireth and endeoureth to have a pleasant, and profitable Orchard, must (if he be able) provide himselfe of a Fruiterer, religious, honest, skilfull in that faculty, and therewithall painfull: By religious, I meane (because many thinke religion but a fashion or cus-

Religious.

some to goe to Church) maintaining, and cherishing things religious: as Schooles of learning, Churches, Tythes, Church goods, and rights; and aboue all things, Gods word, and the Preachers thereof, so much as he is able, practising prayers, comfortable conference, mutuall instruction to edifie, almes, and other workes of Charity, and all out of a good conscience.

Honestie in a Gardner, will grace your Garden, and all your house, and helpe to stay vnbridled Seruingmen, giuing offence to none, not calling your name into question by dishonest acts, nor infecting your family by euill counsell or example. For there is no plague so infectious as Popery and knauery, he will not purloine your profit, nor hinder your pleasures.

Honest.

Concerning his skill, hee must not be a Scholist, to make shew of or take in hand that, which he cannot performe, especially in so weighty a thing as an Orchard: than the which, there can be no humane thing more excellent, either for pleasure

Skilfull.

sure or profit, as shall (God willing) be proved in the treatise following. And what an hinderance shall it be, not onely to the owner, but to the common good, that the vnspeakable benefit of many hundred yeares shall be lost, by the audacious attempt of an vnskillfull Arbozist?

Painfull.

The Gardner had not need be an idle, or lazie Lubber, for so your Orchard being a matter of such moment, will not prosper. There will euer be some thing to doe. Weedes are alwaies growing. The great mother of all liuing Creatures, the Earth, is full of seed in her bowels, and any stirring giues them heat of Sunne, and being laid nere day, they grow: Howles worke daily, though not alwaies alike. Winter herbes at all times will grow (except in extreme frost.) In Winter your young trees and herbes would be lightned of snow, and your Allyes cleansed: drifts of snow will set Deere, Hares, and Conyes, and other noysome beasts ouer your walles and hedges, into your Orchard. When Summer cloathes your borders with greene and peckled colours, your Gardner must dress his hedges, and antike workes: watch his Bees, and hieue them: distill his Roses, and other herbes. Now begins Summer Fruit to ripe, and craue your hand to pull them. If he haue a Garden (as he must need) to keepe, you must needs allow him good helpe, to end his labours which are endlesse, for no one man is sufficient for these things.

Wages.

Such a Gardner as will conscionably, quietly and patiently, trauell in your Orchard, God shall crowne the labors of his hands with ioyfulnesse, and make the clouds drop fatnesse vpon your trees, he will prouoke your loue, and earne his wages, and fees belonging to his place: The house being serued, fallen fruit, superfluity of herbes, and flowers, seeds, grasses, sets, and besides other offall, that fruit which your bountifull hand shall reward him withall, will much augment his wages, and the profit of your Bees will pay you backe againe.

If you be not able, nor willing to hire a Gardner, keepe your profits to your selfe, but then you must take all the paines: And for that purpose (if you want this faculty) to instruct you, haue I vndertaken these labours, and gathered these Rules, but chiefly respecting my countries good.

CHAP. II.

Of the Soyle.



Fruit-Trees most common, and meetest for our northerne Countries: (as Apples, Peares, Cherries, Filberds, redde & white Plumms, Damsons, and Bulles,) for we meddle not with Apricockes nor Peaches, nor scarcely with Quinces, which will not like in our cold parts, vn-

Kindes
of trees.

lesse they be helped with some reflex of Sunne, or other like meanes, nor with bushes, bearing berries, as Warberies, Gosberries, or Grosers, Raspberies, and such like, though the Warbery be wholesome, and the tree may be made great: doe require (as all other trees doe) a blacke, fat, mellow, cleane and well tempered soyle, wherein they may gather plenty of good sap. Some thinke the Basell would haue a chanilie rocke, and the Sallow, and Eller a waterish marish. The Soile is made better by deluing, and other meanes, being well melted, and the wildnesse of the earth and weeds (for euerie thing subiect to man, & seruing his vse, not well ordered, is by nature subiect to the curse,) is killed by frosts and drought, by fallowing and laying on heapes, and if it be wild earth, with burning.

Soyle.

If your ground be barren (for some are forced to make an Orchard of barren ground) make a pit three quarters deepe, and two yards wide, and round in such places, where you would set your trees, and fill the same with fat, pure, and mellow earth, one whole foot higher than your Soyle, and therein set your plant. For who is able to manure an whole Orchard plot, if it be barren? But if you determine to manure the whole site, this is your way: digge a trench halfe a yard deepe, all along the lower (if there be a lower) side of your Orchard plot, casting vp all the earth on the inner side, and fill the same with good short, hot, and tender mucke, and make such another Trench, and fill the same as the first, and so the third, and so throughout your ground. And by this meanes your plot shall be fertile for your life. But be sure you set your trees, neither in dung nor barren earth.

Barren
Earth.

Your ground must be plaine, that it may receiue, and Plaine.

Moyft.

keepe moyfture, not onely the raine falling thereon, but also water caft vpon it, or defcending from higher ground by Auices, Conduits, &c. For I account moyfture in Summer very needfull in the foyle of trees, and drought in Winter. Provided, that the ground neither be boggie, nor the inundation be past 24. houres at any time, and but twice in the whole Summer, and so oft in Winter. Therefore if your plot be in a Banke, or haue a descent, make Trenches by degrees, Alpes, Walkes, and such like, so as the Water may be staid from passage. And if too much water be any hinderance to your walkes (for drie walkes doe well become an Orchard, and an Orchard them:) raise your walkes with earth first, and then with stones, as bigge as Walnuts: and lastly, with grauell. In Summer you need not doubt too much water from heauen, either to hurt the health of your body, or of your trees. And if ouerflowing molest you after one day, auoid it then by deepe trenching.

Some for this purpose digge the soyle of their Orchard to receiue moisture, which I cannot approue: for the rootes with digging are oftentimes hurt, and especially being digged by some vnskillfull seruant: For the Gardiner cannot doe all himselfe. And moreover, the rootes of Apples and Peares, being laid nere day, with the heat of the Sunne, will put forth suckers, which are a great hinderance, and sometimes with euill guiding, the destruction of trees, vnlesse the deluing be very shallow, and the ground laid verie leuell againe. Cherries and plummes without deluing, will hardly or neuer (after twenty yeares) be kept from such suckers, nor alpes.

Grasse.

Grasse also is thought needfull for moyfture, so you let it not touch the rootes of your trees: for it will breede mosse, and the boall of your tree nere the earth would haue the comfozt of the sunne and ayre.

Some take their ground to bee too moist when it is not so, by reason of waters standing thereon, for except in soure marshes, springs, and continuall ouer-flowings, no earth can be too moist. Sandy and fat earth will auoid all water falling by receit. Indeed a stiffe clay will not receiue the water, and therefore if it be grassie or plaine, especially hollow, the water will abide, and it will seeme waterish, when the fault is in the want of manuring, and other good dressing.

This

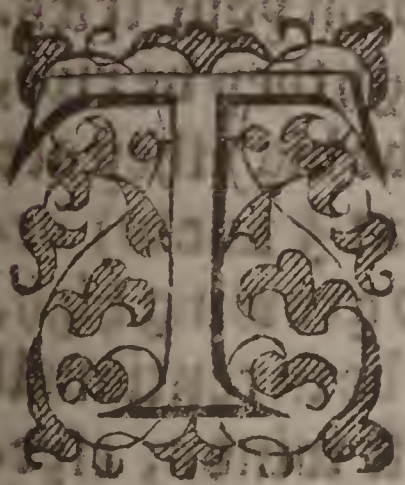
This plainnesse which we require, had need be naturall, because to force an uneven ground will destroy the fatnesse. For every soile hath his crust next day wherein trees and herbes put their rootes, and whence they draw their sap, which is the best of the soile, and made fertile with heate and cold, moisture and drought, and vnder which, by reason of the want of the said temperature, by the said foure qualities, no tree nor herbe (in a manner) will or can put root. As may bee seen in digging your ground, you take the weeds of most growth: as grasse or docks, (which will grow though they lye vpon the earth bare) yet bury them vnder the crust, and they will surely dye and perish, and become manure to your ground. This crust is not past 15. or 18. inches deepe in good ground, in other grounds lesse. Hereby appeares the fault of forced plaines, viz. your crust in the lower parts, is covered with the crust of the higher parts, and both with worse earth: your heights having the crust taken away, are become merely barren: so that either you must force a new crust, or haue an euill soile. And be sure you leuell, before you plant, lest you bee forced to remoue, or hurt your plants by digging, and casting amongst their roots. Your ground must be cleared as much as you may of stones, and grauell, walls, hedges, bushes and other weeds.

Natural-ly plain.

Crust of the earth,

CHAP. III

Of the Site.



Here is no difference, that I find betwixt the necessity of a good soile, and a good site of an Orchard. For a good soile (as is before described) cannot want a good site, and if it doe, the fruit cannot be good, and a good site will much mend an euill soile. The best site is in low grounds, (and if you can) nere vnto a Riuer.

Low and neere a Riuer.

High grounds are not naturally fat. And if they haue any fatnesse by mans hand, the very descent in time doth wash it away. It is with grounds in this case as it is with men in a common wealth. Much will haue more: and once poore, seldome or neuer rich. The raine will scind, and wash, and the wind will blow fatnesse from the heights to the hollowes, where

It will abide, and fatten the earth though it were barren before.

Hence it is, that we haue seldome any plaine grounds, and low, barren: and as seldome any heights naturally fertill. It is vnspeakable, what fatnesse is brought to low grounds by Inundations of waters. Neither did I euer know any barren ground in a low plaine by a Riuer side. The goodnesse of the soile in Howl or Hollow-dernes, in *Yorkeshire*, is well knowne to all that know the Riuer Humber, and the huge bulkes of their Cattell there. By estimation of them that haue seene the low grounds in Holland, and Zealand, they farre surpasse the most Countries in Europe for fruitfulnessse, and onely because they lye so low. The world cannot compare with *Egypt*, for fertility, so farre as *Nilus* doth ouer-flow his bankes. So that a fitter place cannot be chosen for an Orchard, than a low plaine by a riuer side. For besides the fatnesse which the water brings, if any cloudy mist or raine be stirring, it commonly falls downe to, and followes the course of the Riuer. And where see we greater trees of bulk and bough, then standing on or nere the waters side? If you aske why the plaines in Holdernes, & such countries are destitute of woods? I answer that men and cattell (that haue put trees thence, from out of Plaines to void corners) are better then trees. Neither are those places without trees. Our old fathers can tell vs, how woods are decated, & people in the roynth of trees multiplied. I haue stood somewhat long in this point, because some doe vtterly condemne a moist soile for fruit-trees.

psal. 1. 3.
Ezc. 17. 8.
Ecc. 39. 17.

Mark-
ham.

Winds.
chap. 13

A low ground is good to auoid the danger of winds, both for shaking down your vnripe fruit, and blowing down your trees. Fruit blowne vnripe, are small worth: and though they be ripe, yet being brused with the fall, (especially if they be big) they are not good but for present vse. Trees the most (that I know) being loaden with wood, for want of proyning, and growing high, by the vnskilfulnessse of the Arbozist, must needs be in continuall danger of the South-west, West, and North-west winds, especially in September and March, when the aire is most temperate from extreme heat, and cold, which are deadly enemies to great winds. Wherefore chuse your ground low. Or if you be forced to plant in a higher ground, let high and strong walls, houses, and Trees, as Wall-nuts, Plane-trees, Okes, and Aches, placed in good order, be your fence for winds.

The

Theucken of your Dwelling house, descending into your Orchard (if it be cleanly conueighed) is good.

The Sunne (in some sort) is the life of the world. It maketh proud growth, and ripens kindly, and speedily, according to the golden tearme: *Annus fructificat, non tellus.* Therefore in the Countries, neerer approaching the Zodiacke, the Sunnes habitation, they haue better, and sooner ripe fruit, then we that dwell in these frozen parts.

Sunne.

This prouoketh most of our great Arbozists, to plant Apples, cockes, Cherries, and Peaches, by a wall, and with tacks, and other meanes to spread them vpon, and fasten them to a wall, to haue the benefit of the immoderate reflexe of the Sun, which is commendable, for the hauing of faire, good, & soone ripe fruit. But let them know it is moze hurtfull to their trees then the benefit they reape thereby can require: as not suffering a Tree to liue the tenth part of his age. It helpes Gardners to worke, for first the wall hinders the roots, because into a dry and hard wall of earth or stone, a tree will not, nor cannot put any root to profit, but especially it stops the passage of sap, whereby the barke is wounded, and the wood, and diseases grow, so that the tree becomes short of life. For as in the body of a man, the leaning or lying on some member, wherby the course of bloud is stopt, makes that member as it were dead for the time, till the bloud returne to his course, and I thinke, if that stopping should continue any time, the member would perish for want of bloud (for the life is in the bloud) and so endanger the body: so the sap is the life of the Tree, as the bloud is to mans body: neither doth the tree in winter (as is supposed) want his sap, no moze then mans body his bloud, which in winter, & time of sleep drawes inward. So the dead time of winter, to a tree, is but a night of rest: for the tree at all times, euen in winter is nourished with sap, & groweth as well as mans body. The chilling cold may well some little time stay, or hinder the proud course of the sap, but so little & so short a time, that in euey calme, & mild season, euen in the depth of winter (if you marke it) you may easily perceiue, the sap to put out, & your trees to increase their buds, which were formed in the Summer befoze, and may easily then bee discerned: for leaues fall not off, till they be thrust off, with the knots or buds, whereupon it comes to passe that Trees cannot beare fruit pleny.

Trees against a wall.

plentifully two yeres together, and make themselves ready to blossom against the seasonableness of the next Spring. And if any frost be so extreme, that it stay the sap too much, or too long, then it kills the forward fruit in the very bud, and sometimes the tender leaves and twigs, but not the tree. Wherefore (to returne) it is perillous to stop the sap. And where, or when, did you ever see a great tree packt on a wall? Nay, who did ever know a tree so unkindly splat, come to age? I have heard of some, that out of their imaginary cunning, have planted such Trees on the North side of the wall, to avoid drought, but the heat of the Sunne is as comfortable (which they should have regarded) as the drought is hurtfull. And although water is a soueraigne remedy against drought, yet want of Sun is no way to be helped. Wherefore to conclude this Chapter, let your ground be so that it may have the benefit of the south, and west Sunne, and so low and close, that it may have moisture, and increase his fertility (for trees are the greatest suckers and pillers of earth, and (as much as may be) free from great winds.

CHAP. III.

Of the quantitie.



Let it be remembred what a benefit it is, not only to every particular owner of an Orchard, but also to the common-wealth, by Fruit, as shall be shewed in the 16. chapter (God willing) whereupon must needs follow: the greater the Orchard is (being good and well kept) the better it is, for of good things, being equally good, the biggest is the best. And if it shall appeare, that no ground a man occupieth (no, not the Corne-field) yeldeth more gaine to the purse, and house-keeping (not to speake of the unspeakable pleasure) quantity for quantity, than a good Orchard (besides the cost in planting, and dressing an Orchard, is not so much by farre, as the labour and seeding of your Corne-fields, nor for durance of time, comparable, besides the certainty of the one before the other) I see not how any labour, or cost in this kinde, can be idly or wastefully bestowed, or thought too much. And what other thing is a

Orchard
as good
as a corn
field.

Wine

Vineyard (in those Countries where Vines do thrive) than a large Orchard of trees bearing fruit: Or what difference is there in the iuice of the Grape, and our Cyder and Perry, but the goodnesse of the Soile and Climate where they grow: which maketh the one more ripe, and so more pleasant then the other. Whatsoever can be said for the benefit rising from an Orchard, that makes for the largenes of the Orchards bounds. And (me thinks) they doe preposterously, that bestow more cost and labours, and more ground in and vpon a Garden than vpon an Orchard, whence they reape and may reape both more pleasure and more profit, by infinite degrees. And further, that a Garden neuer so fresh, and faire, and well kept, cannot continue without both renewing of the earth, and the herbs often, in the short and ordinary age of a man: whereas your Orchard well kept shall dure diuers hundred yeeres, as shall be shewed chapter 14. In a large Orchard there is much labour saued, in fencing, and otherwise: for three little Orchards, or few trees, being (in a manner) all out-sides, are so blasted and dangered, and commonly in keeping neglected, and require a great fence; whereas in great Orchards, trees are a mutuall defence one to another, and the keeping is regarded, and lesse fencing serues fire acres together, than three in severall inclosures.

Now what quantity of ground is meetest for an Orchard can no man prescribe, but that must be left to every mans severall iudgement, to be measured according to his ability and will, for other necessaries besides fruit must be had, and some are more delighted with Orchards then others.

Let no man having a fit plot pleade poverty in this case, for an Orchard once planted will maintaine it selfe, and yield infinite profit besides. And I am periwaded, that if men did know the right and best way of planting, dressing, and keeping trees, & felt the profit and pleasure thereof, both they that have no Orchards would have them, and they that have Orchards, would have them larger, yea fruit trees in their hedges, as in Worstershire, &c. And I thinke, that the want of planting, is a great losse to our common-wealth, & in particular, to the owners of Lordships, which Landlords themselves might easily amend, by granting longer terme, and better assurance to their Tenants, who have taken vp this Proverbe, Botch and sit, Build and flit:

Compared with a Vineyard.

Compared with a garden

What quantity of ground. Want is no hindrance. How Landlords, by their tenants may make flourishing orchards in England.

for who will build, or plant for another mans profit: Or the Parliament might enioyne every occupier of grounds, to plant and maintaine for so many acres of fruitfull ground, so many severall trees or kind of trees for fruit. Thus much for quantity.

CHAP. V.

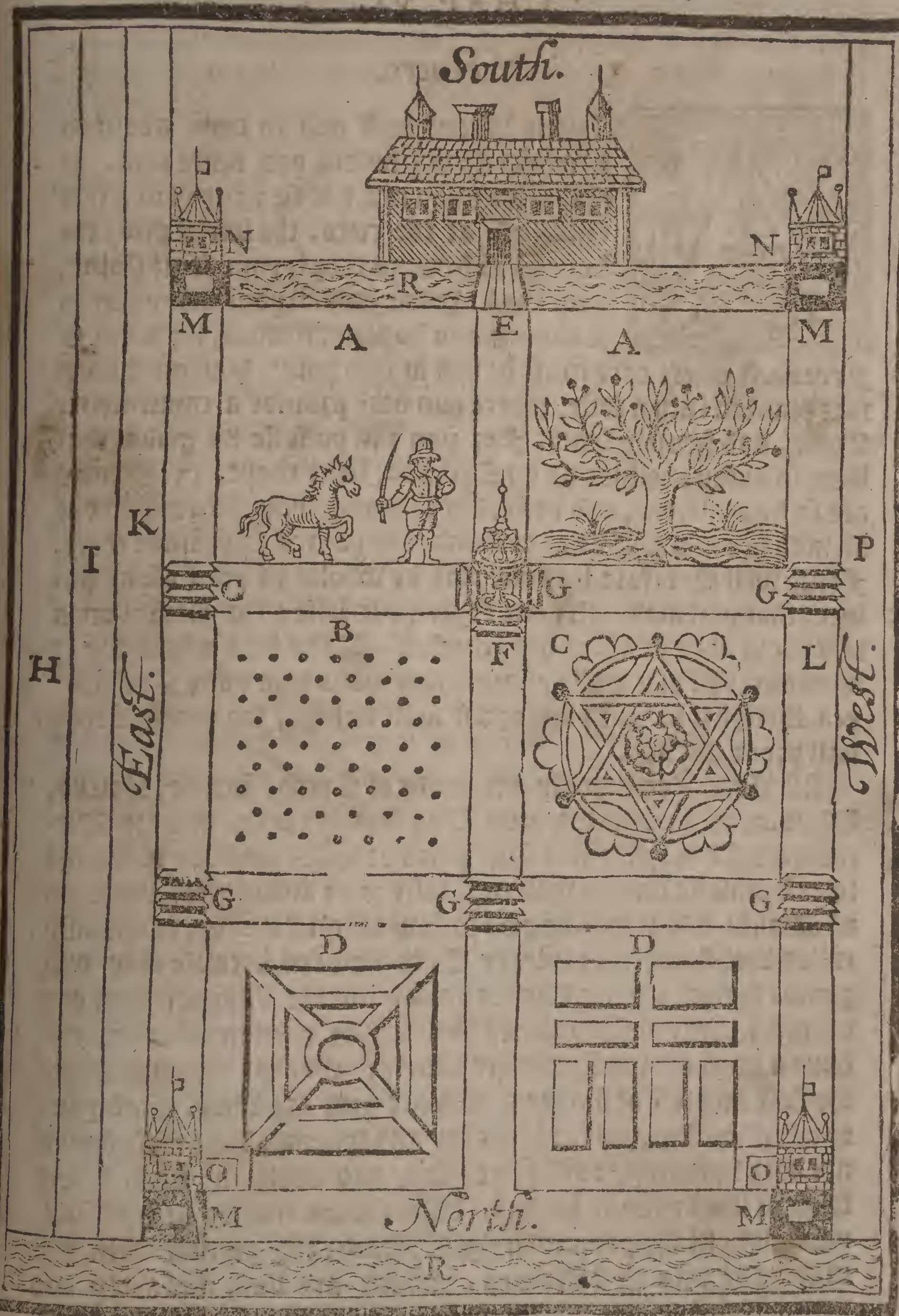
Of the Forme.



The v-
suall
forme is
a square.

The goodnesse of the Soile, and Site, are necessary to the well being of an Orchard simply, but the forme is so farre necessary, as the owner shall thinke meet, for that kind of forme wherewith every particular man is delighted, we leaue it to himselfe, *sumus cuique pulchrum*. The forme that men like in generall is a square, for although roundnesse be *forma perfectissima*, yet that principle is good where necessity by art doth not force some other forme. Now for as much as one principall end of Orchards is recreation by walkes, and vniuersally walkes are straight, it followes that the best forme must be square, as best agreeing with straight walkes: yet if any man be rather delighted with some other forme, or if the ground will not beare a square, I discommend not any forme so it bee formall. And a square may be drawn out of any forme to make straight walkes; and no forme of it selfe is either good or bad for the trees. If within one large square the Gardener shall make one round Labyrinth or Maze with some kind of Berries, it will grace your forme, so there be sufficient roomth left for walkes, so will foure or moe round knots doe. For it is to be noted, that the eye must be pleased with the forme. I haue seene squares rising by degrees with staires from your house-ward, according to this forme which I haue, *Crassa quod aiunt Minerva*, with an vnsteady hand, rough betwen, for in forming the Country Gardners, the better sort may vse better formes, and more costly worke. What is needfull more to be said, I referre that all (concerning the Forme,) to the chapter 17. of the ornaments of an Orchard.

CHAP.



- A. All these Squ must bee set trees, the Gard & other ornam must stand in sp betwixt the tree in the borders fences.
- B. Trees 20. yar asunder.
- C. Garden kno
- D. Kitchen gar
- E. Bridge.
- F. Conduit.
- G. Staires.
- H. Walkes set great wood th
- I. Walkes set great wood r about your chard.
- K. The out fe
- L. The out fen with stone fru
- M. Mount. To earth for a m or such like, round with a and lay boug trees strange termingled, inward with earth in the n
- N. Still-house
- O. Good star for Bees, i haue an hous
- P. If the Riue by your door vnder your n it will be ple

CHAP. VI.

Of Fences.



Effect of
euill fen-
ces.

Let the
fence be
your
owne.

Kinds of
fences.
Earthen
walls;

All your labour past and to come about an Orchard is lost vntlesse you fence well. It shal grieue you much to see your young sets rubd loose at the roots, the barke pild, the boughs and twigs cropt, your fruit stolne, your trees broken, and all your many yeeres Labours and hopes destroyed, for want of Fences. A chiefe care must be had in this point. You must therefore plant in such a soile, where you may prouide a conuenient, strong, and seemely fence. For you can possesse no goods, that haue so many enemies as an Orchard, looke chapt. 13. Fruits are so delight some, and desired of so many (nay, in a manner of all) and yet few will be at cost and take paines to prouide them. Fence well therefore, let your plot be wholly in your owne power, that you make all your fence your selfe: for Neighbours fencing is none at all, or very carelesse. Take heed of a doore or window (yea of a wall) of any other mans into your Orchard: yea, though it be nailed vp, or the wall be high, for perhaps they will proue thauers.

All Fences commonly are made of Earth, Stone, Bricke, Wood, or both earth and wood. Dry wall of earth, and dry Ditches, are the worst fences saue pales or railles, and doe waste the soonest, vntlesse they be well copt with gloe and moztter, whereon at Highill-tide it will be good to sow Wall-flowers, commonly called Bee-flowers, or winter Silly-flowers, because they will grow (though amongst stones) and abide the strongest frost and drought, continually greene and flowering euen in Winter, and haue a pleasant smell, and are timely, (that is, they will floure the first and last of flowers) and are good for Bees. And your earthen wall is good for Bees dry and warme. But these fences are both vnscomly, euill to repaire, and onely for need, where stone or wood cannot be had. Whosoeuer makes such Walls, must not pill the ground in the Orchard, for getting earth, nor make any pits or hollowes, which are both vnscomly and vnprofitable. Old dry earth mixt with sand is best for these.

This

This kinde of wall will soone decay, by reason of the trees which grow néere it, for the roots and boales of great trees, will increase, undermine, and ouerturne such wals, though they were of stone, as is apparant by Ashes, Rountrées, Burt-trees, and such like, carried in the chat, or berrie, by birds into stone wals.

Fences of Dead-wood, as pales, will not last, neither will railes either last or make good fence.

Stone walls (where stone may be had) are the best of this sort, both for fencing, lasting, and shrouding of your young trees. But about this must you bestow much paines and moze cost, to haue them handsome, high and durable.

But of all other (in mine opinion) Quickwood, and Moats or Ditches of Water, where the ground is leuell, is the best fence. In vnequall grounds, which will not képe water, there a double ditch may be cast, made streight and leuell on the top, two yards broad for a faire walke, five or sixe foot higher then the soyle, with a gutter on either side, two yards wide, and foure foot dépe set without, with three or foure chesse of Thoznes, and within with Cherry, Plumme, Damson, Bullys, Filberds, (for I lone these trees better for their fruit, & as well for their foyme, as pziuit) for you may make them take any foyme. And in enery corner (and middle if you will) a mount would be raised, whereabout the wood may claspe, powdered with wood-binde: which will make with dressing a faire, pleasant, profitable, and sure fence. But you must be sure that your quicke thoznes either grow wholly, or that there be a supplie betime, either with planting new, or plashing the old where want is. And assure your selfe, that neither wood, stone, earth, nor water, can make so strong a fence, as this after 7. yeares growth.

Moates, Fish-ponds, and (especially at one side a River,) within and without your fence, will affoord you fish, fence and moysture to your trees, and pleasure also, if they be so great & dépe that you may haue Swans, & other water birds, good for deuouring of vermine, and a boat for many good vles.

It shall hardly auaille you to make any fence for your Orchard, if you be a niggard of your fruit. For as liberality will saue it best from noysome neigbours, liberality I say is the best fence, so Justice must restraine rioters. Thus when your ground is tempered, squared, & fenced, it is time to provide for planting.

CHAP.

Pale and
Raile.
Stone
walls.

Quicke
wood &
Moates.

Moates.

CHAP. VII.

Of Sets.



Here is not one point (in my opinion) about an Orchard more to be regarded, than the choise getting and setting of good plants, either for readinesse of hauing good fruit, or for continuall lasting. For whosoever shall faile in the choise of good Sets, or in getting, or gathering, or setting his Plants, shall neuer haue a good or lasting Orchard. And I take want of skill in this facultie to be a chiefe hinderance to the most Orchards, and to many for hauing of Orchards at all.

Slips.

Some for readinesse vse slips, which seldome take root: and if they doe take, they cannot last, both because their root hauing a maine wound will in short time decay the body of the tree: and besides that rootes being so weakely put, are soone nipt with drought or frost. I could neuer see (lightly) any slip but of Apples onely set for trees.

Bur-knot.

A bur-knot kindly taken from an Apple tree, is much better and surer. You must cut him close at the root end, an handfull vnder the knot, (Some vse in Summer about *Lammas* to circuncise him, and put earth to the knot with hay reaps, and in winter cut him off and set him, but this is curiosity, needlesse, and danger with remouing, and drought.) and cut away all his twigs saue one, the most principall, which in setting you must leaue aboue the earth, burying his trunk in the crust of the earth for his root. It matters not much what part of the bough the twig growes out of. If it grow out of or neere the root end, some say such an Apple will haue no coare nor kernell. Or if it please the Planter, he may let his bough be crooked, and leaue out his top end, one foot or somewhat more, wherein will be good grafting, if either you like not, or doubt the fruit of the bough (for commonly your Bur-knots are Summer fruit) or if you thinke he will not, couer his wound safely.

Vsuall Sets.

The most vsuall kinde of Sets, is Plants with rootes growing of kernels of Apples, Peares, and Crabs, or Stones of Cherries, Plummes, &c. remoued out of a Nursery, Wood, or other Orchard, into, and set in your Orchard in their due places.

I grant this kinde to be better than either of the former, by much, as more sure and more durable. Herein you must note, that in sets so removed, you get all the rootes you can, and without bruising of any; I utterly dislike the opinion of those great Gardiners, that following their Bookes would have the maine rootes cut away, for tops cannot grow without roots. And because none can get all the rootes, and remouall is an hindzance, you may not leaue on all tops, when you set them: For there is a proportion betwixt the top and root of a tree, euen in the number (at least) in the growth. If the rootes be many, they will bring you many tops, if they be not hindred. And if you vse to stowe or top your tree too much or too low, and leaue no issue, or little for sap, (as is to be seene in your hedges) it will hinder the growth of roots and boale, because such a kinde of stowing is a kinde of smothering, or choaking the sap. Great wood, as Oake, Elm, Ash, &c. being continually kept downe, with sheeres, knife, axe, &c. neither boale nor root will thriue, but as an hedge or bush. If you intend to graffe in your Set, you may cut him closer with a greater wound, and nearer the earth, within a foot or two, because the graft or grafts will couer his wound. If you like his fruit, and would haue him to be a tree of himselfe, be not so bold: this I can tell you, that though you doe cut his top close, and leaue nothing but his bulke, because his rootes are few, if he be (but little) bigger than your thumbe (as I wish all Plants removed to be) he will safely recouer his wound within seven yeeres; by good guidance that is: If the next time of dressing immediatly aboue his vppermost sprig, you cut him off aslope cleanelly, so that the sprig stand on the backe side, (and if you can Northward, that the wound may haue the benefit of Summe) at the vpper end of the wound: and let that sprig onely be the boale. And take this for a generall rule; Euery young Plant, if he thriue, will recouer any wound aboue the earth, by good dressing, although it be to the one halfe, and to his very heart. This short cutting at the remoue, saues your Plants from Winde, and neede the lesse or no staking. I commend not Lying or Leaning of Trees against Holds or Stayes; for it breeds obstruction of Sappe and wounds incurable. All removing of Trees as great as your arme, or aboue, is dangerous: though some time

Maine
rootescut.
Stow
sets re-
moued.

Generall
rule.

Tying
of Trees.
Generall
rule.

Signes
of disea-
ses. Cha.
13.

time some such will grow, but not continue long: Because they be tainted with deadly wounds, either in the root or top. (And a tree once thoroughly tainted is never good.) And though they get some hold in the earth with some lesser saw, or sawes, which give some nourishment to the body of the tree: yet the heart being tainted, he will hardly ever thrive; which you may easily discern by the blacknesse of the boughs at the heart, when you dress your trees. Also, when he is set with more tops than the rootes can nourish, the tops decaying, blacken the boughs, and the boughs the armes, and so the boale at the very heart. Or this taint in the remouall, if it kill not presently, but after some short time, it may be discerned by blacknesse or yellownesse in the barke, and a small hungred leafe. Or if your remoued Plant put forth leaues the next and second Summer, and little or few sprays, it is a great signe of a taint, and next yeares death. I haue knowne a tree tainted in setting, yet grow, and beare blossomes for diuers yeeres: and yet for want of strength could neuer shape his fruit.

Suckers
good
sets.

Next vnto this, or rather equall with these Plants, are Suckers growing out of the rootes of great Trees, which Cherries & Plummes doe seldome or neuer want: and being taken kindly with their roots, will make very good Sets. And you may helpe them much by enlarging their rootes with the sawes of the tree, whence you take them. They are of two sorts: Either growing from the very root of the tree: and here you must be carefull, not to hurt your tree when you gather them, by ripping amongst the rootes; and that you take them cleane away: for these are a great and continuall annoyance to the growth of your tree: and they will hardly be cleansed. Secondly, or they doe arise from some saw: and these may be taken without danger, with long and good rootes, and will soone become Trees of strength.

A Run-
ning
Plant.

There is another way, which I haue not thoroughly proued, to get not only Plants for grafting, but Sets to remaine for Trees, which I call a Running Plant: the manner of it is this: Take a Rote or kernell, and put it into the middle of your plot, and the second yeere in the Spring, geld his top, if he haue one principall, (as commonly by nature they haue) and let him put forth only foure Cyons toward the foure corners of the Orchard,

Orchard, as neere the earth as you can. If hee put not foure, (which is rare) stay his top till he haue put so many. When you haue such foure, cut the Stocke aslope, as is aforesaid in this Chapter, hard about the vppermost sprig, and keepe those foure without Cyons cleane and streight, till you haue them a yard and an halfe, at least, or two yards long. When the next spring in grafting time, lay downe those foure sprays, towards the foure corners of your Orchard, with their tops in an heape of pure and good earth, raised as high as the root of your Cyon, (for sap will not descend) and a sod to keepe them downe, leauing nine or twelue inches of the top to looke vppward. In that hill he will put roots, and his top new Cyons, which you must spread as befoze, and so from hill to hill till hee spread the compasse of your ground, or as farre as you list. If in bending, the Cyons cracke, the matter is small, cleanse the ground and hee will recouer. Euery bended bough will put forth branches, and become Trees. If this Plant be of a burre knot, there is no doubt. I haue proued it in one Branch my selfe: and I know at Wilton in Cleue-land a Peare-tree of a great bulke and age, blowne close to the earth, hath put at euery knot rootes into the earth, and from root to top, a great number of mighty armes or trees, filling a great roomth, like many trees, or a little Orchard. Much better may it be done by Art in a lesse Tree. And I could not mislike this kinde, sauz that the time will be long befoze it come to perfection.

Many vse to buy Sets already grafted, which is not the best way: for first, All remoues are dangerous: Againe, there is danger in the carriage: Thirdly, it is a costly course of Planting: Fourthly, euery Gardiner is not trusty to sell you good fruit: Fifthly, you know not which is best, which is worst, and so may take most care about your worst trees. Lastly, this way keepe you from practise, and so from experience, in so good, Gentlemanly, Scholerlike, and profitable a Faculty.

The onely best way (in my opinion) to haue sure and lasting Sets, is neuer to remoue: for euery remoue is an hinderance, if not a dangerous hurt or deadly taint. This is the way: The Plot-forme being laid, and the Plot appointed where you will plant euery Set in your Orchard, dig the roomth, where your Sets shall stand, a yard compasse,

Settes
bought.

The best
Sets.

Vnre-
moued
how.

and make the earth mellow and cleane, and mingle it with a few coale ashes, to auoid Wormes: and immediatly after the first change of the Moone, in the latter end of February, the earth being a fresh turned ouer, put in euery such rowth threë or foure Kirnells of Apples or Peares, of the best: euery Kirnell in an hole made with your finger, finger-deepe, a foot distant one from another: and that day Moneth following, as many moe, (lest some of the former misse) in the same compasse; but not in the same holes. Hence (God willing) shall you haue rootes enough. If they all, or diuers of them come vp, you may draw (but not dig) vp (nor put downe) at your pleasure, the next Nouember. How many soeuer you take away, to giue or bestow elsewhere, be sure to leaue two of the proudest. And when in your second and third yeere you Grasse (if you Grasse then at all) leaue the one of those two vngrafted, lest in grafting the other you faile: For I finde by tryall, that after first or second grafting in the same Stocke, being mist (for who hits all) the third misse puts your Stocke in deadly danger, for want of issue of sap. Pea, though you hit in grafting, yet may your grasses with Winde or otherwise bee broken downe. If your grasses or grasse prosper, you haue your desire, in a Plant vnremoued, without taint, and the fruit at your owne choise, and so you may (some little earth being remoued) pull, but not digge vp the other Plant or Plants in that rowth. If your grasse or Stocke, or both perish, you haue another in the same place, of better strength to worke vpon. For thriuing without snub hee will ouerlay your grafted Stocke much. And it is hardly possible to misse in grafting so often, if your Gardiner be worth his name.

Sets vn-
grafted
best of
all.

It shall not bee amisse (as I iudge it) if your Kirnells be of choice fruit, and that you see them come forward proudly in their body, and beare a faire and broad leafe in colour, tending to a greenish yellow (which argues pleasant and great fruit) to try some of them vngrafted: for although it be a long time ere this come to beare fruit, ten or twelue yeeres, or moe; and at their first bearing, the fruit will not seeme to bee like his owne kinde: yet am I assured, vpon tryall, befoze twenty yeeres growth, such Trees will increase the bignesse and goodnesse of their fruit, and come perfectly to their owne kinde.

Trees.

Trées (like other breeding creatures) as they grow in yeeres, bignes, and strength. so they mend their frutt. Husbands and Huswiues finde this true by experience, in the rearing of their yong Stoze. More then this, there is no trée like this for soundnesse & durable last, if his kéeping and dressing be answerable. I grant, the readiest way to come sone to frutt is graffing: because in a manner, all your Grasses are taken of fruit-bearing Trées.

Now when you have made choise of your Sets to remoue, the ground being ready, the best time is, immediatly after the fall of the Lease, in, or about the change of the Moone, when the sap is most quiet: for then the sap is in turning: for it makes no stay, but in the extremity of drought or cold. At any time in winter, may you transplant trées, so you put no Ice nor Snow to the roote of your Plant in the setting: and therefore open, calme, and moist weather is best. To remoue, the lease being ready to fall, and not fallen, or buds apparantly put forth in a moist, warme season, for need, sometime may doe well: but the safest is to walke in the plaine trodden path.

Time of
remo-
uing.

Generall
rule.

Some hold opinton that it is best remouing befoze the fall of the lease, and I heare it commonly so practised in the South by our best Arbozists, the lease not fallen: & they giue the reason to be, that the descending of the sap will make speedy roots. But marke the reasons following, and I thinke you shall find no soundnes, either in that positio or practise, at least in the reason.

1. I say, it is dangerous to remoue when the sap is not quiet, for euery remoue giues a main checke to the stirring sap, by staying the course thereof in the body of your plant, as may appeare in trées remoued any time in Summer, they commonly die, nay hardly shall you saue the life of the most young and tender plant of any kind of wood (scarcely herbes) if you remoue them in the pride of sap. For proud sap vniuersally stayed, by remouall, euer hinders, often taints, and so presently, or in very short time kills. Sap is like blood in mans body, in which is the life, Cap. 3. pag. 8. If the blood vniuersally be cold, life is excluded; so is sap tainted by vntimely remouall. A stay by drought, or cold, is not so dangerous (tho dangerous if it be extreme) because more naturall.

2. The sap neuer descends, as men suppose, but is consolidated and transubstantiated into the substance of the trée, and

passeth (alwayes aboue the earth) v^pward, not only betwixt the barke and the wood, but also into & in both body and barke, tho not so plentifully, as may appeare by a tree budding, nay fructifying 2. or 3. yeeres, after he be circumcised, at the very root, like a Riner that enlargeth his chanel by a continuall descent.

3. I cannot perceiue what time they wold haue v^p sap to descend. At Midsummer in a biting drought it staies, but descends not, for immediatly v^p moisture it makes second shoots, at (or befoze rather) Michaeltide, when it shapens his buds for next yeeres fruit. If at the fall of the leafe, I grant, about that time is v^p greatest stand (but not descent) of sap, which begins somewhat befoze the leafe fall, but not long, & therefore at that time must needs be the best remaining, not by reason of the descent, but stay of sap.

4. The sap in his course hath his profitable and apparent effects, as the growth of the Tree, couering of wounds, putting of buds, &c. Whereupon it followes, if the sap descend, it must needs haue some effect to the w^o it.

5. Lastly, boughs plasht and laid lower than the root, die for want of sap descending, except where it is forced by the maine stream of the sap, as in top boughs hanging like water in pipes, or except the plasht bough lying on the ground put roots of his owne, yea vnder boughs which wee commonly call water-boughs, can scarcely get sap to liue, yea in time dye, because the sap doth presse so violently v^pward, and therefore the fairest shoots and fruit are alwaies in the top.

Obiect. If you say that many so remoued thrive, I say that somewhat befoze the fall of the leafe (but not much) is the stand, for the fall and the stand are not at one instant, befoze the stand is dangerous. But to returne.

Remoue
soone.

The sooner in Winter you remoue your Sets, the better; the latter the worse: For it is very perillous if a strong drought take your Sets befoze they haue made good their rooting. A Plant set at the Fall, shall gaine (in a manner) a whole yeeres growth of that which is set in the Spring after.

The
manner
of set-
ting.

I vse in the setting to bee sure, that the earth bee mouldy, (and somewhat moist) that it may runne among the small fangles without straining or bruising: and as I fill in earth to his root, I shake the Set easily to and fro, to make the earth settle the better to his roots: and withall easily with
my

my foot I put in the earth close; for ayze is noysome, and will follow concauties. Some prescribe Dates to be put in with the earth. I could like it, if I could know any reason thereof: and they vse to set their plant with the same side toward the Sun: but this conceit is like the other. For first I would haue euery tree to stand so free from shade, that not onely the root (which therefore you must keepe bare from grasse) but body, boughes, and branches, and euery spray, may haue the benefit of Sun. And what hurt, if that part of the tree, that before was shadowed, be now made partaker of the heat of the Sun? In turning of Bees, I know it is hurtfull, because it changeth their entrance, passage, and whole worke: But not so in Trees.

Set as deepe as you can, so that in any wise you goe not beneath the crust. Looke Chap. 2.

Set in the crust. Moyster good.

We spake in the second Chapter of moysture in generall: but now especially hauing put your removed plant into the earth, powze on water (of a puddle were good) by distilling presently, and so euery weeke twice in strong drought, so long as the earth will drinke, & refuse by overflowing. For moysture mollifies, & both giues leaue to the roots to spread, & makes the earth yeld sap and nourishment, with plentie & facilitie. Purses (they say) giue most and best milke after warme drinckes. If your ground be such that it wil keepe no moysture at the root of your plant, such plant shall neuer like, or but for a time. There is nothing more hurtfull for young trees than piercing drought. I haue knowne trees of good stature after they haue bene of diuers yeares growth, and thriue well for a good time, perish for want of water, and very many by reason of taints in setting.

It is meet your sets and grafts be fenced, till they be as big as your arme, for feare of annoyances. Many waies may sets receiue dammages, after they be set, whether they be grafted or vngrafted. For, although we suppose, that no noysome beast, or other thing must haue access among your trees: yet by casualtie, a Dog, Cat, or such like, or your selfe, or negligent friend bearing you company, or a shrewd boy, may tread or fall upon a young and tender plant or graft. To auoyd these and many such chances, you must stake them round a prettie distance from the set, neither so neere, nor so thicke, but that it may haue the benefit of Sunne, raine, and aire.

Grafts must be fenced.

Your stakes (small or great) would be so surely put, or driven into the earth, that they breake not, if any thing happen to leane upon them, else may the fall be more hurtfull, than the want of the fence. Let not your stakes shelter any wædes about your sets, for want of Sunne is a great hinderance. Let them stand so far off, that your grafts spreading receiue no hurt, either by rubbing on them, or of any other thing passing by. If your stocke be long, and high grafted (which I much discommend (except in need) because there the sap is weake, and they are subject to strong wind, and the lighting of birds) tie easily with a soft list three or foure pickes vnder the clay, and let their tops stand aboue the grafts, to auoid the lighting of Crows, Pyes, &c. upon your grafts. If you sticke some sharpe thornes at the roots of your stakes, they will make hurtfull things keepe off the better. Other better fences for your grafts I know none. And thus much for sets and setting.

CHAP. VIII.

Of the distance of Trees.

I know not to what end you should provide good ground, well fenced, & plant good sets; & when your trees should come to profit, haue all your labours lost, for want of due regard to the distance of placing of your trees. I haue seene many trees stand so thicke, that one could not thriue for the throng of his neighbours. If you doe marke it, you shall see the tops of trees rubbed off, their sides galled like a galled horses backe, and many trees haue more stumps than boughs, and most trees no well thriuing, but short, stumpish, & euill thriuing boughs: like a Corne-field ouer-seeded, or a towne ouer-peopled, or a pasture ouer-laid, which the Gardiner must either let grow, or leaue the tree very few boughs to beare fruit. Hence small thrist, galls, wounds, diseases, and short life to the trees: and while they liue greene, little, hard, worme-eaten, and euill thriuing fruit arise, to the discomfort of the owners.

Remedy.

To prevent which discomfortie, one of the best remedies is, the sufficient & fit distance of trees. Therefore at the setting of your plants you must haue such a respect, that the distance of them

them be such, that euery tree be not annoiance, but an helpe to his fellowes : for trees (as all other things of the same kinde) should shrowd, and not hurt one another. And assure your selfe that euery touch of trees (as well vnder as aboue the earth) is hurtful. Therefore this must be a generall rule in this Art: That no tree in an Orchard well ordered, nor bough, nor Cyp, drop vpon, or touch his fellowes. Let no man thinke this vnpossible, but looke in y^e eleuenth chapter of dressing of trees. If they touch, the winde will cause a forcible rub. Young twigs are tender, if boughs or armes touch and rub, if they are strong, they make great galls. No kinde of touch therefore in trees can be good.

Now it is to be considered what distance amongst sets is requisite, and that must be gathered from the compasse and roomth, that each tree by probability will take and fill. And herein I am of a contrary opinion to all them, which practise or teach the planting of trees, that euer yet I knew, read, or heard of. If or the common space betwix trees and tree is ten foot: if twenty foot, it is thought very much. But I suppose twenty yards distance is small enough betwix tree and tree, or rather too too little. For the distance must needs be as far as two trees are well able to ouerspread, and fill, so they touch not, by one yard at least. Now I am assured, and I know one Apple-tree, set of a slip *finger-great*, in the space of twenty yeares, (which I count a very small part of a trees age, as is shewed Chapter 14.) hath spread his boughs eleuen or twelue yards compasse, that is, five or six yards on euery side. Hence I gather, that in forty or fiftie yeares (which yet is but a small time of his age) a tree in good soile, well liking, by good dressing (for that is much available to this purpose) will spread double at the least, viz. twelue yards on a side, which being added to twelue allotted to his fellow, make twenty and foure yards, and so farre distant must euery tree stand from another. And looke how farre a tree spreads his boughs aboue, so far doth he put his roots vnder the earth, or rather further, if there be no stop, nor let by walls, trees, rocks, barren earth, and such like : for an huge bulk, and strong armes, massie boughs, many banches, and infinite twigs, require wide-spreading rootes. The top hath the best aire to spread his boughs in, high and low, this way and that way : but the roots are kept in the crust of the earth, they may not goe downward, nor
 upward.

Generall
rule.
All touches hurt
full.

The best
distance
of trees.

Parts of
a tree.

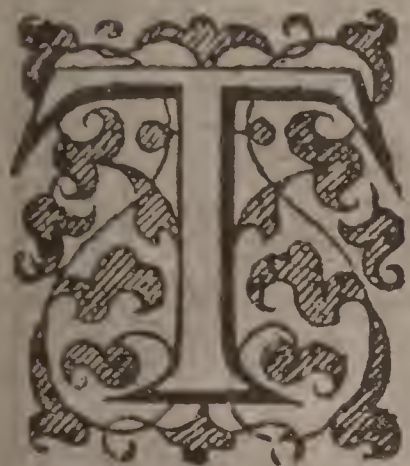
upward out of the earth, which is their element, no more than the Fish out of the Water, Camelion out of the Aire, nor Salamander out of the Fire. Therefore they must needs spread far vnder the earth. And I dare well say, if nature would giue leaue to man by Art, to dresse the roots of trees, to take away the faues, and tangles, that lap and fret and grow superfluously and disorderly, (for euery thing *sublunary* is cursed for mans sake) the tops aboue being answerably drested, we should haue trees of wonderfull greatnesse, and infinite durance. And I perswade my selfe that this might be done sometimes in Winter, to trees standing in faire plaines and kindly earth, with small or no danger at all. So that I conclude, that twenty foure yards are the least space that Art can allot for trees to stand distant one from another.

Waste
ground
in an or-
chard.

If you aske me what vse shall be made of that waste ground betwixt tree and tree? I answer: If you please to plant some tree or trees in that middle space, you may, and as your trees grow contiguous, great and thicke, you may at your pleasure take vp those last trees. And this I take to be the chiefe cause, why the most trees stand so thicke. For men not knowing (or not regarding) this secret of needfull distance, and louing fruit of trees planted to their hands, thinke much to pull vp any, though they pine one another. If you or your heires or successors would take vp some great trees (past setting) where they stand too thicke, be sure you doe it about midsummer, and leaue no maine rootes. I destinate this space of foure and twenty yards, for trees of age and stature. More than this, you haue borders to be made for walkes, with Roses, Berries, &c.

And chiefly consider: that your Orchard, for the first twenty or thirtie yeeres, will serue you for many Gardens, for Safron, Licoras, roots, and other herbes for profit, and flowers for pleasure: so that no ground need be wasted if the Gardiner be skillfull and diligent. But be sure you come not nere with such deepe deluing the rootes of your trees, whose compasse you may partly discern, by the compasse of the tops, if your top be well spread. And vnder the droppings and shadow of your trees, be sure no herbes will like. Let this be said for the distance of Trees.

CHAP. IX.

Of the Placing of Trees.

The placing of Trees in an Orchard is well worth the regard: For although it must be granted, that any of our foresaid Trees (chap. 2.) will like well in any part of your Orchard, being good and well dressed earth: yet are not all Trees alike worthy of a good place. And therefore I wish that your Filberd, Plummes, Damsons, Bulelle, and such like, be utterly removed from the plaine soile of your Orchard into your fence: for there is not such fertility and easefull growth, as within: and there also they are more subiect, and can better abide the blasts of Aolus. The Cheries and Plummes being ripe in the hot time of Summer, and the rest standing longer, are not so sone shaken as your better fruit: neither if they suffer losse, is your losse so great. Besides that, your fences and ditches will deuoure some of your fruit growing in or nere your hedges. And seeing the continuance of all these (except Futs) is small, the care of them ought to be the lesse. And make no doubt, but the fences of a large Orchard will containe a sufficient number of such kind of Fruit-trees in the whole compasse. It is not materiall, but at your pleasure, in the said fences, you may either intermingle your seuerall kinds of fruit-trees, or set euery kind by himselfe, which order doth very wel become your better and greater fruit. Let therefore your Apples, Peares, and Quinches, possesse the soile of your Orchard, vnlesse you be especially affected to some of your other kinds: and of them let your greatest Trees of growth stand furthest from Sunne, and your Quinches at the South side or end, and your Apples in the middle, so shall none be any hindzance to his fellowes. The Warden-tree, and winter Peare will challenge the preheminnence for stature. Of your Apple-trees you shall finde difference in growth. A good Pippin will grow large, and a Colhard tree: stead them on the North side of your other Apples, thus being placed, the least will giue Sun to the rest, and the greatest will shroud their fellowes. The fences and out-trees will guard all.



CHAP. X.

Of Grafting.

Of gra-
uing or
caruing.

Grafting
what.



A Grafte

Kinds of
grafting.

Now are we come to the most curious point of our faculty: curious in conceit, but indeed as plaine and easie as the rest, when it is plainly shewne, which we commonly call Grafting, or (after some) Graffing. I cannot Etymologize, nor shew the originall of the word, except it come of grauing and caruing. But the thing or matter is: The reforming of the Fruit of one Tree with the fruit of another, by an artificiall transplacing or transposing of a twig, bud or leafe, (commonly called a Graft) taken from one tree of the same, or some other kind, and placed or put to, or into another tree in due time and manner.

Of this there be diuers kinds, but three or foure now especially in vse: to wit, Grafting, incising, packing on, grafting in the scutchion, or inoculating: whereof the chiefe and most vsuall, is called grafting (by the generall name, *Catabexocen:*) for it is the most knowne, surest, readiest, and plainest way to haue store of good fruit.

It is thus wrought : You must with a fine, thin, strong, and sharpe Saw, made and armed for that purpose, cut off a foot above the ground, or thereabouts, in a plaine without a knot, or as nere as you can without a knot (for some Stockes will be knotty) your Stocke, set or plant, being surely stayed with your foot and legge, or otherwise streight overthwart (for the Stocke may bee crooked) and then plaine his wound smoothly with a sharpe knife : that done, cleave him cleanly in the middle with a cleauer, and a knocke or mall, and with a wedge of wood, Iron or Bone, two handfull long at least, put into the middle of that cleft, with the same knocke, make the wound gape a straw bredth wide, into which you must put your Graftes.

Graft
how.

The graft is a top twigge taken from some other Tree (for it is folly to put a grafte into his owne Stocke) beneath the uppermost (and sometime in need the second) knot, and with a sharpe knife fitted in the knot (and sometime out of the knot when neede is) with shoulders an ynch downward, and so put into the stock with some thrusting (but not straining) barke to barke inward.

A Graft
what.

Let your grafte haue three or foure eyes, for readinesse to put forth, and giue issue to the sap. It is not amisse to cut off the top of your grafte, and leaue it but five or six inches long, because commonly you shall see the tops of long graftes die. The reason is this. The sap in grafting receiues a rebake, and cannot worke so strongly presently, and your graftes receiue not sap so readily, as the naturall branches. When your graftes are cleanly and closely put in, and your wedge puld out nimbly, for feare of putting your graftes out of frame, take well tempered mortar, soundly wrought with chaffe or horse dung (for the dung of cattell will grow hard, and straine your graftes) the quantity of a Gales egge, and diuide it iust, and there withall, couer your stocke, laying the one halfe on the one side, and the other halfe on the other side of your graftes (for thrusting against your graftes) you moue them, and let both your hands thrust at once, and alike, & let your clay be tender, to yeeld easly; and all, lest you moue your graftes. Some vse to couer the cleft of the Stocke, vnder the clay with a peece of barke or leafe, some with a sear-cloth of ware and butter, which as they be not much neede

Eyes.

Generall
Rule.

full, so they hurt not, valesse that by being busie about them, you moue your graffes from their places. They vse also mosse tyed on aboue the clay with some brier, wicker, or other bands. These profit nothing. They all put the graffes in danger, with pulling and thrusting: for I hold this generall rule in grafting, and planting: if your stocke and graffes take, and thrive (for some will take, and not thrive, being tainted by some meanes in the planting or grafting) they will (without doubt) recouer their wounds safely and shortly.

Time of
grafting.

The best time of grafting from the time of remouing your stocke is the next Spring, for that saues a second wound, and a second repulse of sap, if your stocke bee of sufficient bignesse to take a graffe from as big as your thumbe, to as big as an arme of a man. You may graffe lesse (which I like) and bigger, which I like not so well. The best time of the yeere is in the last part of February, or in March, or beginning of Aprill, when the Sunne with his heat beginnes to make the sap stirre more rankely, about the change of Maye before you see any great apparancy of leafe or flowers, but onely knots and buds, and before they be proud, though it be sooner. Cherries, Peares, Appricocks, Quinces and Plummes would be gathered and grafted sooner.

Gathe-
ring
graftes.

The graffes may be gathered sooner in February, or any time within a moneth, or two before you graffe, or vpon the same day (which I commend) If you get them any time before, for I haue knowne graffes gathered in December, and doe well, take heed of drought. I haue my selfe taken a bur knot of a tree, and the same day when he was laid in the earth about mid February, gathered grafts and put in him, and one of those graffes bore the third yeere after, and the fourth plentifully. Graffes of old Trees would be gathered sooner than of young trees, for they sooner breake and bud. If you keepe graffes in the earth, moisture with the heat of the Sunne will make them sprout as fast, as if they were growing on the tree. And therefore seeing keeping is dangerous, the surest way (as I iudge) is to take them within a weeke of the time of your grafting.

Graffes
of old
trees.

The grafts would be taken not of the proudest twigs, for it may be your Stocke is not answerable in strength. And therefore (say I) the grafts brought from South to vs in the North, although

although they take and thriue (which is somewhat doubtfull, by reason of the difference of the Climate and carriage) yet shall they in time fashion themselves to our cold Northerne Soyle, in growth, taste, &c. For of the poorest, for want of strength may make them unreadie to receiue sap (and who can tell but a poore graft is tainted) nor on the outside of your tree, for there should your tree spread but in the midst: for there you may be sure your Tree is no whit hindered in his growth or forme. Hee will still recover inward, more than you would wish. If your clay clift in summer with drought, looke well in the Chinkes for Emmites and Carewigs, for they are cunning and close thieves, about grafts you shall finde them stirring in the morning or evening, and the rather in moist weather. I haue had many young buds of Graftes, euen in the flourishing, eaten with Ants. Let this suffice for grafting, which is in the faculty counted the chiefe secret, and because it is most vsuall, it is best knowne.

Where taken.

Emmites.

Graftes are not to be disliked for growth, till they wither, pine, and die. Usually before Midsummer they breake, if they liue. Some (but few) keeping proud and greene, will not put till the second yeare, so is it to be thought of sets.

The first shew of putting is no sure signe of growth it is but the sap the graffe brought with him from his tree.

So soone as you see the graft put for growth take away the claie, for then doth neither the stocke nor the graffe need it (put a little fresh well-tempered claie in the hole of the stocke) for the claie is now tender, and rather keepes moisture than drought.

The other waies of changing the naturall fruit of Trees, are more curious than profitable, and therefore I minde not to bestow much labour or time about them, onely I shall make knowne what I haue proued, and what I doe thinke.

And first of incising, which is the cutting of the backe of the boale, a rine or branch of a tree at some bending or knee, shoulderwise with two gashes, onely with a sharpe knife to the wood: then take a wedge, the bignesse of your graffe sharpe ended, flat on the one side, agreeing with the tree, and round on the other side, and with that being thrust in, raise your barke,

Incising.

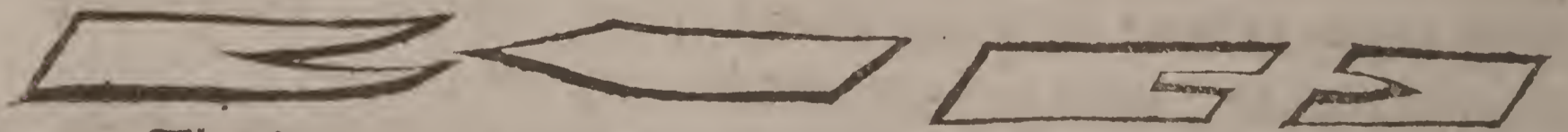
A great
stocke.

then put in your gresse, fashioned like your wedge iust: and lastly couer your wound, and fast it vp, and take hzd of straining. This will grow but to small purpose, for it is weake hold, and lightly it will be vnder growth. Thus may you graft betwixt the barke and the tree of a great stocke that will not easily be clifted: But I haue tried a better way for great trees, viz. First, cut him off straight, and cleanse him with your knife, then cleaue him into foure quarters, equally with a strong cleauer: then take for euery Clift two or thre small (but hard) wedges iust of the bignesse of your grafts, and with those Wedges driuen in with an hammer open the foure clifts so wide (but no wider) that they may take your foure gresses, with thrusting, not with straining: and lastly couer and clay it closely, and this is a sure and good way of grafting: or thus, clift your stocke by his edges twice or thrice with your cleauer, and open him with your wedge in euery clift one by one, and put in your grafts, and then couer them. This may doe well.

Packing
thus.

Packing on is, when you cut aslope a twig of the same bignesse with your graft, either in or besides the knot, two inches long, and make your graft agree iumpe with the Cyon, and gash your graft and your Cyon in the middell of the wound, lengthway, a straw bzeadth deepe, and thrust the one into the other, wound to wound, sap to sap, barke to barke, then tie them close and clay them. This may doe well. The fairest graft I haue in my little Orchard, which I haue planted, is thus packt on, and the bzanch whereon I put him, is his plentifull roote.

To be short in this point, cut your graft in any sort or fashion, two inches long, and ioyne him cleanly and close to any other sprig of any tree in the latter end of the time of grafting, when sap is somewhat rife, and in all probabilitie they will close and thriue: thus



The sprig.

The graft.

The twig.

The graft.

Or any other fashion you thinke good.

Inocula-
ting.

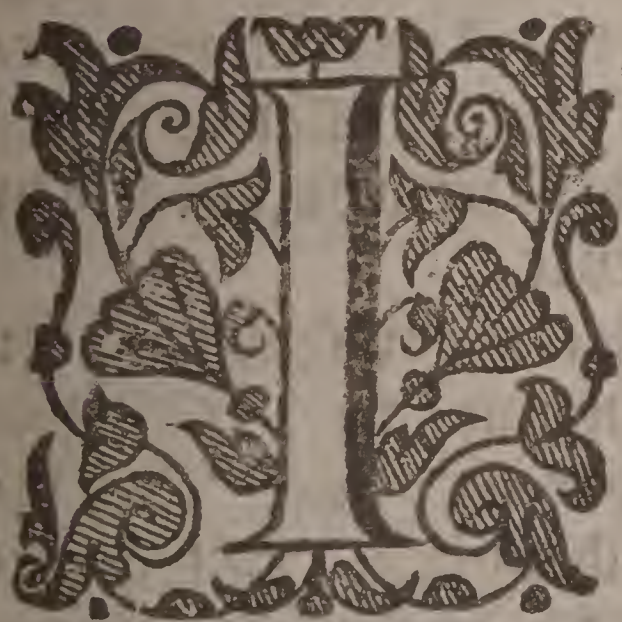
Inoculating is an eye or bud, taken barke and all from one tree, and placed in the roome of another eye or bud of another, cut both of one compasse, and there bound. This must be done in Summer, when the sap is proud.

Much like vnto this is that, they call grafting in the scutchion. They differ thus: That here you must take an eie with his leafe, or (in mine opinion) a bud with his leaues. (Note that an eie is for a Cyon, a budde is for flowers and fruit.) and place them on another tree, in a plaine (for so they teach) the place or barke where you must set it must be thus cut with a sharpe knife, and the barke raised with a wedge, and then the

H eie or budde put in and so bound vp. I cannot denie but such may grow. And your bud if he take wil flowze and beare fruit that yeere: as some grafts and sets also, being set for bloomes. If these two kindes thriue, they refozme but a spray, and an vndergrowth. Thus you may place Roses on Thoznes, and Cherries on Apples, and such like. Many write much moze of grafting, but to small purpose. Whom we leaue to themselues, and their followers; and ending this secret we come in the next Chapter to a point of knowledge most requisite in an Arborist, as well for all other woods as for an Orchard.

Grafting
in the
Scutchi-
on

CHAP. XI.

Of the right dressing of Trees.

If all these things aforesaid were indeed performed, as wee haue shewed them in words, you should haue a perfect Orchard in nature and substance, begunne to your hand: And yet are all these things nothing, if you want that skill to dresse and keepe your trees. Such is the condition of all earthly things, whereby a man receiueth profit

Necessi-
ty of
dressing
trees.

or pleasure, that they degenerate presently without good ordering. Man himselfe left to himselfe, growes from his heauenly & spirituall generation, and becommeth beastly, yea deuillish to his owne kind, vnlesse he be regenerate. No maruell then, if Trees make their shootes, and put their sprates disorderly. And truly (if I were worthy to iudge) there is not a mischiefe

Generall
rule.

chiefe that breedeth greater and more generall harme to all the Orchard (especially if they be of any continuance) that ever I saw, (I will not except three) than the want of the skilfull dressing of trees. It is a common and unskilfull opinion, and saying, Let all grow, and they will beare more fruit: and if you lop away superfluous boughes, they say, what a pittie is this? How many apples would these have borne? not considering there may arise hurt to your Orchard, as well (nay rather) by abundance, as by want of wood. A sound and thriving plant in a good soyle, will ever yeeld too much wood, and disorderly, but never too little. So that a skilfull and painfull Arbozist, need never want matter to effect a plentiful and well dressed Orchard: for it is an easie matter to take away superfluous boughes (if your Gardener have skill to know them) whereof your plants will yeeld abundance, and skill will leaue sufficient well ordered. All ages both by rules and experience doe consent to a pruning and lopping of trees: yet have not any that I know described vnto vs (except in darke and generall words, what or which are those superfluous boughes, which we must take away, and that is the chiefe and most needfull point to be knowne in lopping. And we may well assure our selues, (as in all other Arts, so in this) there is a vantage and dexterity, by skill, and an habit by practise out of experience, in the performace hereof for the profit of mankind; yet doe I not know (let me speake it with the patience of our cunning Arbozists) any thing within the compasse of humane affaires so necessary, and so little regarded, not only in Orchards, but also in all other timber trees, where or whatsoever.

Timber
wood e-
will dress.

How many forests and woods? wherein you shall haue for one liuely thriving tree, foure (nay sometimes 24.) euill thriving, rotten and dying trees, euen while they liue. And instead of trees thousands of bushes and shrubbes. What rottenesse? what hollownesse? what dead armes? withered tops? curtalled trunkes? what loades of molles? drooping boughes? and dying branches shall you see euery where? And those that like in this sort are in a manner all vnprofitable boughes, canked armes, crooked, little and short boales: what an infinite number of bushes, shrubs, and skrogs of hazels, thoznes, and other profitable wood, which might be brought

brought by dressing to become great and goodly Trees. Consider now the cause: The lesser wood hath beene spoiled with carelesse, unskillfull, and untimely fflowing, and much also of the great wood. The greater Trees at the first rising haue filled and ouer-loaden themselves with a number of wastfull boughs and suckers, which haue not onely drawne the sappe from the boale, but also haue made it knottie, and themselves and



Imagine the root to be spread farre wider.

the boale mottie for want of dressing, whereas if in the prime of growth they had beene taken away close, all but one top (according to this patterne) and cleane by the bulke, the strength of all the Sap should haue gone to the bulke, and so he would haue recovered and couered his knots, and haue put forth a faire, long and streight body (as you see) for timber profitable, huge great of bulke, and of infinite last.

If all timber Trees were such (will some say) how should we haue crooked wood for wheeles, corbs, &c.

The cause of hurts in wood.

Dresse timber trees how.

¶

Answer.

Answ. Dresse all you can, and there will be enough crooked for those vles.

More than this, in most places, they grow so thicke, that neither themselves, nor earth, nor any thing vnder or nere them can thriue, nor sunne, nor raine, nor aire can do them, nor any thing nere or vnder them any profit or comfort.

I see a number of Hags, where out of one roote you shall see thre or foure, (nay more) such as mens vnskilfull greedynesse, who desiring many haue none good) pritty Dakes or Ashes, straight and tall, because the roote at the first shoot giues Sap amaine: but if one only of them might be suffered to grow, and that well and cleanly pruned, all to his very top, what a Tree should wee haue in time? And wee see by those roots continually and plentifully springing, notwithstanding so deadly wounded. What a commodity should arise to the owner, and the common-wealth, if wood were cherished, and orderly dressed.

Profit of trees dressed.

The waste boughs closely and skilfully taken away, would giue vs store of fences and sell well, and the bulke of the tree in time would grow of huge length and bignesse. But here (me thinks) I heare an vnskilfull Arbozist say, that trees haue their severall formes, euen by nature, the Beare, the Holly, the Aspe, &c. grow long in bulke with few and little armes. The Oke by nature broad, and such like. All this I grant: but grant me also, that there is a profitable end, and vse of every tree, from which if it decline (tho by nature) yet man by art may (nay must) correct it. How other end of Trees I neuer could learne, than good timber, fruit much and good, and pleasure. Vses physicaill hinder nothing a good forme.

The end of trees.

Trees will take any forme.

Neither let any man euer so much as thinke, that it is vnprofitable, much lesse vnpossible, to reforme any tree of what kinde soeuer. For (believe me) I haue tried it, I can bring any tree (beginning by time) to any forme. The Beare and Holly may be made to spread, and the Oke to close.

But why doe I wander out of the compasse of mine Orchard into the Forrests and woods? Neither yet am I from my purpose, if boales of timber trees stand in need of all the sap, to make them great and straight (for strong growth and dressing make strong trees) then it must needs be profitable for fruit (a thing

thing more immediately serving a mans need) to haue all the sap his root can yeild: for as timber sound, great and long, is the good of timber trees, and therefore they beare no fruit of worth: so fruit, good, sound, pleasant, great and much, is the end of fruitfull trees. That Gardener therefore shall performe his duty skilfully and faithfully, which shall so dresse his Trees, that they may beare such and such sorte of fruit, which he shall neuer doe (I dare undertake) vntil he keepe this order in dressing his Trees.

The end
of trees.

A fruit Tree so standing, that there need none other end of dressing but fruit (not ornaments for walkes, nor delight to such as would please their eye only, and yet the best forme cannot but both adorne & delight) must be parted from within two foot (or thereabouts) of the earth, so high to giue liberty to dresse his root, and no higher, for drinking vp the sap that should feede his fruit, for the boale will be first, and best serued and fed, because he is next the root, and of greatest ware and substance, and that makes him longest of life, into two, three, or foure armes, as your Locke or grasse yeild twigs, and euery arme into two or more banches, and euery banch into his seuerall Cyons, still spreading by equall degrees, so that his lowest spray be hardly without the reach of a mans hand, and his highest be not past 2. yards higher, rarely (especially in the midst) that no one twig touch his fellow. Let him spread as far as he list without any master-bough, or top equally. And when any bough doth grow sadder and fall lower, than his fellowes (as they will with weight of fruit) ease him the next spring of his superfluous twigs, and he will rise: when any bough or spray shall amount aboue the rest; either snub his top with a nip betwixt your finger and your thumbe, or with a sharpe knife, and take him cleane away, and so you may vse any Cyon you would reforme, and as your tree shall grow in stature and strength, so let him rise with his tops, but slowly, and early, especially in the midst, and equally, and in bredth also, and follow him upward with lopping his vnder growth and water-boughs, keeping the same distance of two yards, but not aboue three in any wise, betwixt the lowest and highest twigs.

How to
dresse a
fruit tree

1 Thus shall you haue well liking, cleane skind, healthfull, great, and long lasting trees.

Benefits
of good
dressing

2 Thus shall your Tree grow low, and safe from winds, for his top will be great, broad and weighty.

3 Thus growing broad, shall your trees beare much fruit (I dare say) one as much as five of your common trees, and good without shadowing, dropping, and fretting: for his boughs, branches, and twigs shall be many, and those are they (not the boale) which beare the fruit.

4 Thus shall your boale being little (not small but low) by reason of his shortnesse, take little, and yeeld much sap to the fruit.

5 Thus your Trees by reason of strength in time of setting shall put forth more blossomes, and more fruit, being free from taints; for strength is a great helpe to bring forth much and safely, whereas weaknesse failes in setting though the season be calme.

Some vse to bare Trees roots in Winter, to stay the setting till hotter seasons, which I discommend, because,

1 They hurt the roots.
2 It staies it nothing at all.
3 Though it did, being but small, with vs in the North, they haue their part of our Aprill and Maies frosts.

4 Hindrance cannot profit weake trees in the setting.

5 They waste much labour.

6 Thus shall your tree be easie to dresse, and without danger, either to the tree or the dresser.

7 Thus may you safely and easily gather your fruit without falling, bruising or breaking of Cyons.

This is the best forme of a fruit-tree, which I haue here only shadowed out for the better capacity of them that are led more with the eye, than the mind, craving pardon for the deformity, because I am nothing skillfull either in painting or caruing.

Imagine that the paper makes but one side of the Tree to appeare, the whole round compasse will give leaue for many more armes, boughs, branches and Cyons.

The perfect forme of a Fruit tree.



If any thinke a tree cannot well be brought to this forme: *Experto crede Roberto.* I can shew diuers of them vnder twenty yeares of age.

The fittest time of the Moone for proyning is as of grafting, when the sap is ready to stirre (not proudly stirring) and so to couer the wound, and of the yere, a month before (or at least when) you graffe. Dresse Peares, Apricoks, Peaches, Cherries, and Bullys sooner. And old trees before young plants, you may dresse at any time betwixt Lease and Lease. And note, that where you take any thing away, the sap the next summer will be putting: be sure therefore when he puts a bud in any place where you would not haue him, rub it off with your finger.

And heere you must remember the common homely *Pro-uerbe*: Soone crookes the tree that good Camrell must bee. Beginne betime with trees, and doe what you list: but if you let them grow great and stubborne, you must doe as the trees list. They will not bend but bzeake, nor be wound without danger. A small bbranch will become a bough, and a bough an arme in bignesse. When if you cut him, his wound will fester, and hardly, without good skill, recover: therefore, obsta-

Time
best for
proi-
ning.

Dresse
betime.

Faults
of euill
drest
trees, &
the re-
medie.

The
forme
altered.

Dressing
of old
trees.
Faults
are five,
& their
reme-
dies.

1. Long
boale.

No re-
medie.

2. Water
boughs.

Remedy

Barke-
pild, and
the re-
medie.

principijs. Of such wounds, and lesser, or any bough cut off a handfull or more from the body, comes holtonnesse, and br- timely death. And therfore when you cut, strike close, and cleane, and vprwards, and leaue no bunch.

This forme in some cases sometimes may be altered: If your tree, or trees, stand nere your Walkes, if it please your fancie more, let him not bzeake, till his boale be aboue your head: so may you walke vnder your trees at your pleasure. Or if you set your fruit trees for your shades in your Groves, then I respect not the forme of the tree, but the comelineffe of the walke.

All this hitherto spoken of dressing, must be vnderstood of young Plants, to be formed: it is meete somewhat be said for the instruction of them that haue old trees already formed, or rather deformed: for, malum non vitatur nisi cognicum. The faults therfore of a disordered tree, I finde to be five: 1. An vnprofitable boale: 2. Waterboughes: 3. Fretters: 4. Suckers: and 5. One principall top.

A long boale asketh much feeding, and the more he hath the more he desires, and gets (as a drunken man drinke, or a covetous man wealth) and the lesse remaines for the fruit, he puts his boughes into the aire, and makes them, the fruit, and it selfe more dangered with windes: for this I know no remedie, after that the tree is come to growth, once euill, neuer good.

Water boughes, or vndergrowth, are such boughes as grow low vnder others and are by them ouergrowne, ouershadowed, dropped on, and pinde for want of plentie of sap, and by that meanes in time die: For the sap presseth vprward; and it is like water in her course, where it findeth most issue, thither it floweth, leaving the other lesser suces dry: even as wealth to wealth, and much to more. These so long as they beare, they beare lesse, worse, and fewer fruit, and waterish.

The remedie is easie, if they be not growne greater than your arme. Lop them close & cleane, & cover the middle of the wound, the next Summer when he is drie, with a salve made of tallow, tar, & a very little pitch, good for the couering of any such wound of a great tree: vlesse it be barke-pild, and then a scar-cloth of fresh Butter, Hony, and Ware, presently (while the wound is græne) applyed, is a soueraigne remedie in Summer especially. Some bind such wounds with a thumbe rope of Hay, moist, and rub it with dung.

Fret,

Fretters are, when as by the negligence of the Gardener, two, or more parts of the tree, or of diuers trees, as armes, boughs, branches, or twigs, grow so nere and close together, that one of them by rubbing, doth wound another. This fault of all other shewes the want of skill, or care (at least) in the Arbozist: for here the hurt is apparant, and the remedy easie, sene to betime: galls and wounds incurable, but by taking away those members: for let them grow, and they will be worse and worse, and so kill themselves with ciuill strife for rooth, and danger the whole tree. Auoid them betime therefore, as a common-wealth doth bolome-enemies.

A Sucker is a long, proud, and disorderly Cypion, growing streight vp (for pride of sap makes proud, long & streight growth) out of any lower parts of the tree, receiuing a great part of the sap, and bearing no fruit, till it haue tyrannized ouer the whole tree: These are like idle and great Drones amongst Bees; and proud and idle members in a common-wealth.

The remedy of this is, as of water-boughes, vnlesse he be growne greater, then all the rest of the boughs, and then your Gardener (at your discretion) may leaue him for his boale, and take away all, or the most of the rest. If he be little, slip him, and set him, perhaps he will take: my fairest Apple-tree was such a Slip.

One or two principall top boughs are as euill, in a manner, as Suckers, they rise of the same cause, and receiue the same remedy: yet these are more tolerable, because these beare fruit, yea the best: but Suckers of long doe not beare.

I know not how your tree should be faulty, if you reforme all your vices timely, and orderly. As these rules serue for dressing young trees and sets in the first planting: so may they well serue to helpe old trees, though not exactly to recouer them.

The Instruments fittest for all these purposes, are most commonly: For the great Trees an handsome, long, light Ladder of Firpoles, a little, nimble, and strong armed Saw, and Sharpe. For lesse Trees, a little and sharpe Hatchet, a broad mouthed Chesell, strong and sharpe, with an handbeetele, your strong and sharpe Clauer, with a knock, and (which is a most necessary Instrument amongst little Trees) a great hatted and sharpe Knife or Whittle. And as needfull is a

3.
Fretters.Touching.
Remedy.4.
Suckers.

Remedy.

5.
One
Principall top or
bough,
and re-
medy.Instru-
ments
for dress-
ing.

Stole

Stoole on the top of a Ladder of eight or more rungs, with two backe feet, whereon you may safely and easefully stand to graffe, to dzesse, and to gather fruit, thus formed: The feet may be fast wedged in: but the Ladder must hang loose, with two bands of iron. And thus much of Dzeasing trees for fruit, formally to profit.



CHAP. XII.

Of Foyling.

Necessi-
ty of foy-
ling.



Here is one thing yet very necessary for to make your Orchard both better, and more lasting: *Pea*, so necessary, that without it your Orchard cannot last, nor prosper long, which is neglected generally both in precepts and in practise, viz. manuring with Foile: whereby

it hapneth that when trees (amongst other evils) through want of fatnesse to feede them, become mossie, and in their growth are euill (or not) thriuing, it is either attributed to some wrong cause, as age (when indeed they are but young) or euill standing (stand they neuer so well) or such like, or else the cause is altogether vnknowne, and so not amended.

Trees
great
suckers.

Great
bodies.

Can there be deuised any way by nature, or art, sooner or sounder to seeke out, and take away the heart and strength of earth, than by great trees? Such great bodies cannot bee sustained without great store of sap. What living body haue you greater than of trees? The great Sea-monsters (whereof one came a land at Teesmouth in Yorkshire, hard by us, 18. yards in length, and nere as much in compasse) seeme hideous, huge, strange, & monstrous, because they be indeed great: but especially, because they are seldome scene: But a tree liking, come to his growth and age, twice that length, and of a bulke neuer so great, besides his other parts, is not admired, because he is so commonly scene. And I doubt not, but if he were well regarded from his kirknell, by succeeding ages, to his full strength, the most of them would double their measure. About fifty yeeres agoe I heard by credible and constant report, That in Brooham Parke in West-moze-land, nere unto Penrich, there lay a
blowne

blowne Dake, whose Trunke was so bigge, that two Horsemen being the one on the one side, and the other on the other side, they could not one see another: to which if you adde his armes, boughs, and roots, and consider of his bignesse, what would he haue bene, if preserved to the bantage. Also I read in the History of the West-Indians, out of Peter-Martyr, That sixtēne men taking hands one with another, were not able to fathome one of those trees about. Now Nature hauing giuen to such a faculty by large and infinite roots, tawes and tangles, to draw immediatly his sustenance from our common mother the Earth (which is like in this point to all other mothers that beare) hath also ordained that the Tree ouer-loden with fruit, and wanting sap to feed all she hath brought forth, will waine all she cannot feed, like a woman bringing forth moe children at once then she hath teats. See you not how Trees especially, by kind being great, standing so sticke and close, that they cannot get plenty of sap, pine away all the grasse, weeds, lesser shrubs, and trees, yea and themselves also for want of bigge of sap? So that trees growing large, sucking the soile whereon they stand, continually, and amaine, and the foyson of the earth that feeds them decaying (for what is there that wastes continually, that shall not haue end?) must either haue supply of sucken, or else leane thriuing and growing. Some grounds will beare Corne while they be new, and no longer, because their crust is shallow, and not very good, and lying high they scind and wash, and become barren. The ordinary Corne soiles continue not fertill, without following and foyling, and the best requires supply, euen for the little body of Corne. How then can wee thinke that any ground (how good soeuer) can sustaine bodies of such greatnesse, and such great feeding, without great plenty of Sap arising from good earth? This is one of the chiefe causes, why so many of our Orchards in England are so euill thriuing when they come to growth, and our fruit so barren. Men are loth to bestow much ground, and desire much fruit, and will neither set their trees in sufficient compasse, nor yet feed them with manure. Therefore of necessity Orchards must be foiled.

The fittest time is, when your Trees are growne great, Time fit
and haue nere hand spread your earth, wanting new earth to for foy-
sustaine ling.

Kind of
foyle.

sustaine them, which if they do, they will seeke abroad for better earth, and shun that, which is barren (if they find better) as cattell euill pasturing. For nature hath taught euery creature to desire and seeke his owne good, and to auoid hurt. The best time of the yeere is at the Fall, that the Frost may bite and make it tender, and the Raine wash it into the roots. The Summer time is perillous if ye dig, because the sap stirs amaine. The best kinde of Foyle is such as is fat, hot, and tender. Your earth must be but lightly opened, that the dung may goe in, and wash away; and but shallow, lest you hurt the roots: & in the Spring, closely and equally made plaine againe for feare of Suckers. I could wish, that after my Trees haue fully possessed the soile of mine Orchard, that euery seuen yeeres at least, the soile were bespread with dung halfe a foot thicke at least. Puddle water out of the dunghill powred on plentifully, will not only moisten but fatten especially in June and July. If it bee thicke and fat and applied euery yeere, your Orchard shall need none other foiling. Your ground may lye so low at the Riuer side, that the flood standing some daies and nights thereon, shall save you all this labour of foiling.

CHAP. XIII.

Of Annoyances.



Chiefe helpe to make euery thing good, is to auoid the euils thereof: You shall neuer attaine to that good of your Orchard you looke for, vnlesse you haue a Gardner, that can discern the diseases of your trees, & other annoyances of your Orchard, & find out the causes thereof, and know & apply fit remedies for the same. For be your ground, site, plants, and trees as you would wish, if they be wasted with hurtful things, what haue you gained but your labor for your trauel: It is with an Orchard & euery tree, as with mans body. The best part of physicke for preservation of health, is to foresee & cure diseases. All the diseases of an Orchard are of two sorts, either inter-nall or externall. I call those inward hurts which breed on and in particular trees.

Two
kinds of
euils in
an Or-
chard.

- | | |
|-----------------------|------------------|
| 1 Galls. | 5 Barke bound. |
| 2 Canker. | 6 Barke pild. |
| 3 Mosse. | 7 Worme. |
| 4 Weaknes in setting. | 8 Deadly wounds. |

Galls, Canker, Mosse, weaknesse, though they bee diuers diseases: yet (howsoever Authoꝝ thinke otherwise) they rise all out of the same cause.

Galls we haue described with their cause and remedy, in the 11. Chapter vnder the name of fretters.

Canker is the consumption of any part of the tree, barke and wood, which also in the same place is deciphered vnder the title of water-boughes.

Mosse is sensibly scene and knowne of all, the cause is pointed out in same Chapter, in the discourse of Timber-wood, and partly also the remedy: But for Mosse adde this, That at any time in summer (the Spring is best) when the cause is remoued, with an Harecloth, immediatly after a showze of raine, rub off your Mosse, or with a peece of waxe (if the Mosse abound) formed like a great knife.

Weaknesse in the setting of your fruit shall you finde there also in the same Chapter, and his remedy. All these flow from the want of roomth in good soile, wrong planting, Chap. 7. and cuill or no dressing.

Barke-bound (as I thinke) riseth of the same cause, and the best, and present remedy (the causes being taken away) is with your sharpe knife in the Spring, length-way to launch his barke throughout, on thzee or foure sides of his boale.

The disease called the Worme is thus discerned: The barke will be hoald in diuers places like gall, the wood will die & dry, & you shall see easily the barke swell. It is verily to be thought, that therein is bred some worme. I haue not yet thorowly sought it out, because I was neuer troubled therewithall: but only haue scene such trees in diuers places. I thinke it a worme rather, because I see this disease in trees, bringing fruit of sweet taste, & the swelling shewes as much. The remedy (as I coniecture) is so sone as you perceiue the wound, the next spring cut it out barke & all, and apply Cowes pisse & vineger presently, and so twice or thrice a weeke for a Moneths space: For I well perceiue, if you suffer it any time, it eates the tree or bough round, & so kills.

Galls.

Canker.

Mosse.

Weaknesse in setting.

Barke-bound.

Worme.

Remedy

Since I first wrote this Treatise, I have changed my mind concerning the disease called the woyme, because I read in the History of the West-Indians, that their trees are not troubled with the disease called the woyme or canker, which ariseth of a raw and euill concocted humoz or sap, *Witnessse Pliny*, by reason their Country is moze hot then ours, whereof I thinke the best remedy is (not disallowing the former, considering that the woyme may breed by such an humoz) warme standing, sound lopping and good dressing.

Bark-
pilde.
Wounds.

Bark-pild you shall find with his remedy in the 11. Chapter. Deadly wounds are when a mans Arbozist wanting skill, cuts off armes, boughs or branches an inch, or (as I see some times) an handfull, or halfe a foot or moze from the body: These so cut cannot cover in any time with sap, and therefore they die, and dying they perish the heart, and so the tree becomes hollow, and with such a deadly wound cannot liue long.

Remedy.

The remedy is, if you find him befoze he be perished, cut him close, as in the 11. Chapter: if he be hoald, cut him close, fill his wound, tho neuer so deepe, with moztter well tempered and so close at the top his wound with a Seare-cloth doubled & nailed on, that no aire nor raine approach his wound. If he be not very old, and detaining, he will recouer, and the hole being closed, his wound within shall not hurt him for many peeres.

Hurts
on trees.
Ants,
Earwigs,
Cater-
pillars,
and such
like
wormes.

Hurts on your trees are chiefly Ants, Carewigs, and Caterpillars. Of Ants and Carewigs is said Chap. 10. Let there be no swarme of Bismires neere your Tree root, no not in your Orchard, turne them ouer in a frost, and poure in water, and you kill them.

For Caterpillars, the diligent Fruterer shall soone espy their lodging by their Web, or the decay of leaues eaten round about them. And being scene, they are easily destroyed with your hand, or rather (if your tree may spare it) take sprig and all (for the red peckled butter-fly doth euer put them, being her sparm, among the tender sprays for better feeding, especially in drought) and tread them vnder your feet. I like nothing of smoke among my trees. Unnaturall heates are nothing good for naturall trees. This for diseases of particular trees.

External
cuils.

Externall hurts are either things naturall or artificiall. Naturall things, externally hurting Orchards:

- | | | | |
|-----------|------------|----------|--------------|
| 1 Beasts. | 1 Deere. | 2 Birds. | 1 Bulfinch. |
| | 2 Goates. | | 2 Thrush. |
| | 3 Sheepe. | | 3 Blackbird. |
| | 4 Hare. | | 4 Crow. |
| | 5 Cony. | | 5 Pye. |
| | 6 Cattell. | | |
| | 7 Horse. | | ec. |

The other things are,

- 1 Winds.
- 2 Cold.
- 3 Trees.
- 4 Weeds.
- 5 Wormes.
- 6 Mowles.
- 7 Filth.
- 8 Poysonfull smoke.

Externall wilfull euils are these:

- 1 Walls.
- 2 Trenches.
- 3 Other works noisome done in or neere your Orchard.
- 4 Euill Neighbours.
- 5 A carelesse Master.
- 6 An vndiscreet, negligent or no Keeper.

See you not here an whole Army of mischiefes banded in troupes against the most fruitfull trees the earth beares: assailing your good labours. Good things haue most enemies.

A skilfull Fruiterer must put to his helping hand, and disband and put them to flight.

Foz the first ranke of beasts, besides your out strong fence, you must haue a faire and swift Greyhound, a stone-bow, gun, and if neede require, an Apple with an hooke foz a Deere, and an Hare-pipe foz an Hare.

Your Cherries and other Berries when they be ripe, wil draw all the Black-birds, Thrushes and Haw-pies to your Orchard. The Bul-finch is a deuouter of your Fruit in the bud, I haue had whole trees shald out with them in Winter-time.

The best remedy here is a Stone-bow, a piece, especially if you haue a Musket or Spar-hawke in Winter to make the Black bird stoop into a bush or hedge.

The Gardener must cleanse his soile of all other Trees: but

Remedy

Deere, &c.

Birds.

Remedy

Other fruit trees.

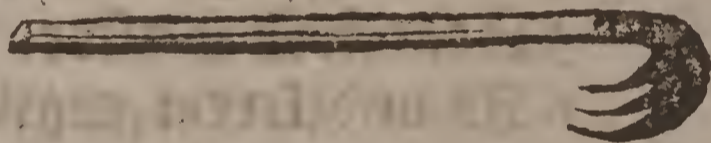
fruit trees aforesaid Chapter 2. for which it is ordained, and I would especially name Oakes, Elmes, Ashes, and such other great wood, but that I doubt it should be taken as an admission of lesser trees: for I admit of nothing to grow in mine Orchard but Fruit and Flowers. If Sap can hardly be good to feed our Fruit-trees, why should we allow of any other, especially those, that will become their Masters, and wrong them in their livelihood.

Winds.
Frosts.

And although we admit without the fence of Walnuts in most plaine places, Trees middle-most, and Ashes or Oakes, or Elmes utmost, set in comely rows equally distant with faire Allies twixt row and row to avoid the boisterous blasts of winds, and within them also others for Bees; yet we admit none of this into your Orchard-plat: other remedy then this have we none against the nipping frosts.

Weeds.

Weeds in a fertile soile (because the generall curse is so) till your Trees grow great, will be noysome, and deforme your allies, walkes, beds, and squares, your vnder Gardners must labour to keepe all cleanly and handsome from them, and all other filth with a Spade, weeding-knives, rake with iron teeth: a skrapple of Iron thus formed,



For Nettles and ground-Ivy after a showre.

Remedy

When Weeds, straw, stikes, and all other scrapings are gathered together, burne them not, but bury them vnder your crust in any place of your Orchard, and they will dye and fatten your ground.

Wormes
Moles.

Wormes and Moales open the earth, and let in aire to the roots of your Trees, & deforme your squares and walkes, & feeding in the earth, being in number infinite, draw on barrennes.

Remedy

Wormes may easily be destroyed. Any Summer evening when it is darke, after a showre with a Candle, you may fill bushels, but you must tread nimbly. And where you cannot come to catch them so; sift the earth with coale ashes an inch or two thicknesse, and that is a plague to them, so is sharpe grauell.

Moles will anger you, if your Gardner or some skilfull Mole-catcher ease you not, especially having made their fortresses among the roots of your trees: you must watch her well with a Mole-

Mole-speare, at mozne, noone, and night, when you see her vtmost hill, cast a Trench betwixt her and her home (foz she hath a principall mansion to dwell and breed in about Aprill, which you may discern by a principall hill, wherein you may catch her, if you trench it round and sure, and watch well) or wheresoeuer you can discern a single passage (foz such she hath) there trench, and waich, and haue her.

Wilfull annoyances must be preuented and auoided by the loue of the Master and Fruterer, which they beare to their Orchard.

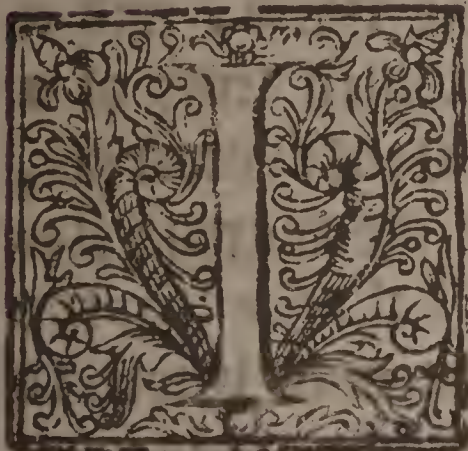
Justice and liberality will put away euill neighbours or euill neighbour-hood. And then (if God blesse and giue successe to your labours) I see not what hurt your Orchard can sustaine.

Wilfull annoyances.

Remedy

CHAP. XIII.

Of the Age of Trees.



It is to be considered: All this Treatise of trees tends to this end, that men may loue and plant Orchards, whereunto there cannot be a better inducement then that they know (or at least be perswaded) that all that benefit they shall reape thereby, whether of pleasure or profit, shall not be for a day or a month, or one, or many (but many hundred) yeeres. Of good things the greatest, and most durable is alwaies the best. If therefore out of reason grounded vpon experience, it bee made (I thinke) manifest, but I am sure probable, that a fruit-tree in such a soile and site, as is described so planted and trimmed and kept, as is afore appointed and duly soiled, shall dure 1000. yeeres, why should we not take paines, and be at two or three yeeres charges (foz vnder seuen yeeres will an Orchard be perfected for the first planting, and in that time be brought to fruit) to reape such a commodity, and so long lasting.

Let no man thinke this to be strange, but peruse and consider the reason. I haue Apple-trees standing in my little Orchard, which I haue knowne these forty yeeres, whose age before my time I cannot learne, it is beyond memory, tho I haue enquired of diuers aged men of 80. yeeres and vpwards: these trees although come into my possession very euill ordered,

The age of trees.

Gathered by reason out of experience.

red, mistaken, and one of them wounded to his heart, and that deadly (for I know it will be his death) with a wound, wherein I might haue put my foot in the heart of his bulke (now it is lesse) notwithstanding, with that small regard they haue had since, they so like, that I assure my selfe they are not come to their growth by more than 2. parts of 3. which I discern not only by their owne growth, but also by comparing them with the bulke of other trees. And I find them short (at least) by so many parts in bignesse, although I know those other fruit trees to haue bene much hindzed in their stature by euill guiding. Herehence I gather thus.

Parts of
a Trees
age.

If my trees be a hundred yeeres old, and yet want two hundred of their growth befoze they leaue encreasing, which make three hundred, then we must needs resolue, that this three hundred yeere are but the third part of a Trees life, because (as all things living besides) so Trees must haue allowed them for their encrease one third, another third for their stand, and a third part of time also for their decay. All which time of a Tree amounts to nine hundred yeeres, three hundred for increase, three hundred for his stand, whereof we haue the tearme stature, and three hundred for his decay, and yet I thinke (for we must coniecture by comparing, because no one man liueth to see the full age of Trees) I am within the compasse of his age, supposing alwaies the foresaid meanes of preserving his life. Consider the age of other living creatures. The Horse and mouled Ore wrought to an vntimely death, yet double the time of their increase. A Dog likewise increaseth three, stands three at least, and in as many (or rather moe) decayes. Euery living thing bestowes the least part of his age in his growth, and so must it needs be with Trees. A man comes not to his full growth and strength (by common estimation) befoze thirty yeeres, and some slender and cleane bodies, not till forty, so long also stands his strength, and so long also must hee haue allowed by course of nature to decay. Euer supposing that he bee well kept with necessaries, and from and without straines, bruises, and all ether dominyng diseases. I will not say vpon true report, that Physicke holds it possible, that a cleane body kept by these 3. Doctors, Doctor Dyet, Doctor Quiet, and Doctor Merriman, may liue nere a hundred yeeres. Neither

Mans
age.

Neither will I beere b2ge the long yeeres of Methushalah, and those men of that time, because you will say, Mans dayes are shortned since the flood. But what hath shortned them? God for mans finnes: but by meanes, as want of knowledge, euill gouernement, ryot, gluttony, drunkennes, and (to be short) the encrease of the curse, our finnes increasing in an irou and wicked age.

Now if a man, whose body is nothing (in a manner) but tender rottenesse, whose course of life cannot by any meanes, by counsell, restraint of lawes, or punishment, nor hope of praise, profit, or eternall glory, be kept within any bounds, who is degenerate cleane from his naturall feeding, to effeminate nicenesse, and cloying his body with excesse of meat, drinke, slepe, &c. and to whom nothing is so pleasant and so much desired as the causes of his owne death, as idlenesse, lust, &c. may liue to that age: I see not but a tree of a solide substance, not damntified by heate or cold, capable of, and subiect to any kinde of ordering or dressing, that a man shall apply vnto him, feeding naturally, as from the beginning disburdened of all superfluties, eased of, and of his owne accord auoiding the causes that may annoy him, should double the life of a man, moze than twice told; and yet naturall philosophy, and the vniuersall consent of all Historizies tell vs, that many other living creatures farre exceed man in the length of yeeres: As the Hart and the Raven. Thus reporteth that famous Roterodam out of Hesiodus, and many other Historiographers. The testimony of Cicero in his booke De Senectute, is weighty to this purpose: that we must in posteris ætates ferere arbores, which can haue none other sence: but that our fruit trees, whereof he speakes, can endure for many ages.

What else are trees in comparison with the earth: but as haire to the body of man? And it is certaine, without poisoning, euill and distemperate dyet, and blage, or other such forcible cause, the haire dure with the body. That they be called excrements, it is by reason of their superfluous growth: (for cut them as often as you list, and they will still come to their naturall length.) Not in respect of their substance, and nature. Haire endure long, and are an ornament and vse also to the body, as trees to the earth.

So that I resolue vpon good reason, that fruit-trees well ordered, may liue and like a thousand yeeres, and beare fruit, and the longer, the moze, the greater, and the better, because his vigour is proud and stronger, when his yeeres are many: You shall see old trees put their buds and blossomes both sooner and moze plentifully than yong trees by much. And I sensibly perceine my yong trees to enlarge their fruit, as they grow greater, both for number, and greatnesse. Yong Heifers bring not forth Calues so faire, neither are they so plentiful to milke, as when they become old kine. No good Housewife will breed of a yong but an old bird-mother: It is so in all things naturally, therefore in trees.

The age of
timber
trees.

And if fruit-trees last to this age, how many ages is it to be supposed, strong and huge timber trees will last: whose huge bodies require the yeeres of diuers Methushalahas, before they end their dayes, whose Sap is strong and bitter, whose Barke is hard and thicke, and their substance solid and stiffe: all which are defences of health and long life. Their strength withstands all forcible winds, their sap of that quality is not subiect to woymes and tainting. Their bark receiues seldome or neuer by casualty any wound. and not onely so, but he is free from remouals, which are the death of millions of trees, whereas the fruit tree in comparison is little, and often blowne downe, his sap sweet, easily, and soone tainted, his barke tender, and soone wounded, and himselfe bled by man, as man bled himselfe, that is either unskillfully, or carelessly.

Age of
trees dis-
cerned.

It is good for some purposes to regard the age of your fruit trees, which you may easily know, till they come to accomplish twenty yeeres, by his knots: Reckon from his root by an arme, and so to his top-twig, & every yeeres growth is distinguished from other by a knot, except lopping or remouing doe hinder.

CHAP. XV.

Of gathering and keeping Fruit.

Although it be an easie matter, when God shall send it, to gather and keepe fruit, yet are they certaine things worthy your regard. You must gather your fruit when it is ripe, and not before, else will it wither and be tough and sooze. All fruit generally are ripe, when they beginne to fall.

Generall
Rule.

fall. For Trees doe as all other bearers doe, when their yong ones are ripe, they will waine them. The Dove her Pigeons, the Cony her Rabbits, and women their children. Some fruit tree sometimes getting a faint in the setting with a frost or e-will winde, will cast his fruit untimely, but not befoze he leaue giuing them sap, or they leaue growing. Except fro this soze-said rule, Cherries, Damsons, and Bullies. The Cherry is Cherries, ripe when he is sweld wholly red, and sweet: Damsons and Bullies not befoze the first frost.

Apples are knowne to bee ripe, partly by their colour, Apples. growing towards a yellow, except the Leather-coat and some Peares and Greening.

Timely Summer fruit will be ready, some at Midsummer, When. most at Lammas for present vse; but generally no keeping fruit befoze Michael tide. Hard Winter fruit and Wardens longer.

Gather at the full of the Moone for keeping, gather dry, for Dry stalkes. feare of rotting.

Gather the stalkes withall: for a little wound in fruit, is deadly: but not the stumpe, that must beare the next fruit, nor leaues, for moisture putrifies.

Gather euery kinde seuerally by it selfe, for all will not keep Seuerally. alike, and it is hard to discerne them, when they are mingled.

If your trees be ouer-laden (as they will be, being ordered, Ouerladen as is befoze taught you) I like better of pulling some off (the trees. they be not ripe) neere the top end of the bough, then of propping by much, the rest shall be better fed. Propping puts the bough in danger, and frets it at least.

Instruments: A long Ladder of light Firre: A scole-lad- Instru- der as in the 11. Chapter. A gathering appon like a poake be- ments. foze you, made of purpose, or a Wallet hung on a bough, or a basket with a fine bottome, or skinne bottome, with Lathes or splinters vnder, hung in a rope to pull by & down: byuise none, Bruises. euery byuise is to fruit death: if you doe, vse them presently. An hooke to pul boughs to you is necessary, byeake no boughes.

For keeping, lay them in a dry Loft, the longest keeping Keeping. Apples first and furthest on dry straw, on heapes ten or fourteene dayes, thicke, that they may sweat. Then dry them with a soft & cleane cloth, and lay them thinne abroad. Long keeping fruit

fruit would bee turned once in a moneth softly: but not in noz immediatly after frost. In a loft couer well with straw, but rather with chaffe or bzan: For frost doth cause tender rottennes.

CHAP. XVI. Of Profits.

Now pause with your selfe, and view the end of all your labours in an Orchard: vnspeakeable pleasure, and infinite commoditie. The pleasure of an Orchard I referre to the last Chapter for the conclusion: and in this Chapter, a word or two of the profit, which thozowly to declare is past my skill: and I count it as if a man should attempt to adde light to the Sunne with a Candle, or number the Starres. No man that hath but a meane Orchard or iudgement but knowes, that the commoditie of an Orchard is great: Neither would I speake of this, being a thing so manifest to all; but that I see, that through the carelesse lazinesse of men, it is a thing generally neglected. But let them know, that they lose hereby the chiefest good which belongs to housekeeping.

Compare the commoditis that commeth of halfe an acre of ground, set with fruit trees and hearbs, so as is prescribed, and a whole Acre (say it be two) with Cozne, or the best commoditie you can wish, and the Orchard shall exceed by diuers degrees.

In France and some other Countries, and in England, they make great vse of Cydar and Perry, thus made: Dresse every Apple, the stalke, vpper end, and all galles away; Stamp them, and straine them, and within 24. houres tunne them vp into cleane, sweet, and sound vessels, for feare of euill ayre, which they will readily take: and if you hang a poake full of Cloues, Mace, Nutmegs, Cinamon, Ginger, and pills of Lemmons in the midst of the vessel, it will make it as wholesome and pleasant as wine. The like vsage doth Perry require. These drinks are very wholesome, they coole, purge, and prevent hot Agues. But I leaue this skill to Physicians.

The benefit of your Fruit, Rootes and Hearbs, though it were but to eate and sell, is much.

Waters distilled of Roses, Woodbind, Angelica, are both profitable and wonderous pleasant, and comfoztable.

Secret

Cydar and
Perry.

Fruit.

Waters.

Saffron and Lycoras will yeeld you much Conserues and Preserues, are ornaments to your Feasts, health in your sicknesse, and a good helpe to your friend, and to your purse. Conserues.

He that will not be moued with such vnspeakable profits, is well woorthy to want, when others abound in plenty of good things.

CHAP. XVII. Ornaments.

Me thinks hitherto we haue but a bare Orchard for fruit, and but halfe good, so long as it wants those comely Ornaments, that should giue beauty to all our labours, and make much for the honest delight of the owner and his friends.

For it is not to be doubted: but as God hath giuen man things profitable, so hath hee allowed him honest comfort, delight, and recreation in all the works of his hands. Nay, all his labours vnder the Sunne without this are troubles, and vexation of minde: For what is greedy gaine, without delight, but moyling, and turmoyling in slavery? But comfortable delight, with content, is the good of euery thing, and the patterne of heauen. Delight the chiefe end of Orchards.

A morsell of bread with comfort, is better by much than a fat Dye with vnquietnesse. And who can deny, but the principall end of an Orchard, is the honest delight of one wearied with the works of his lawfull calling? An Orchard delightful.

The very works of, and in an Orchard & Garden, are better than the ease and rest of and from other labours. An Orchard is Paradise.

When God had made man after his owne Image, in a perfect state, and would haue him to represent himselfe in authozity, tranquillitie, & pleasure vpon the earth, he placed him in Paradise.

What was Paradise? but a Garden and Orchard of trees and hearbs, full of all pleasure: & nothing there but delights.

The gods of the earth, resembling the great God of heauen in authozitie, Maiestie, and abundance of all things, wherein is their most delight? And whither doe they withdraw themselves from the troublesome affayres of their estate, being tyed Causes of wearisomesse.

with the hearing and iudging of litigious Controuersies? choked (as it were) with the close ayres of their sumptuous buildings, their stomacks cloyed with varietie of Banquets, their eares filled & ouerburthened with tedious discourings?

Orchard is whither? but into their Orchards: made and prepared, desired remedy. sed and destinated for that purpose, to renew and refresh their senses, and to call home their over-wearied spirits. Nay, it is (no doubt) a comfort to them, to set open their Casements into a most delicate Garden and Orchard, whereby they may not onely see that, wherein they are so much delighted, but also to give fresh, sweet, and pleasant ayze to their Galleries and Chambers.

All delight
in Or-
chards.

And looke, what these men doe by reason of their greatnesse and abilitie, prouoked with delight, the same doubtlesse would euery of vs doe, if power were answerable to our desires, whereby we shew manifestly, that of al other delights on earth, they that are taken by Orchards, are most excellent, and most agreeing with nature.

This de-
lights all
the senses.

For whereas euery other pleasure commonly filles some one of our senses, and that onely, with delight, this makes all our senses swimme in pleasure, and that with infinit variety, toy- ned with no lesse commodity.

Delighteth
old age.

That famous Philosopher, & matchlesse Orator, M. T. C. prescribeth nothing moze fit, to take away the tediousnesse and heauy load of thzee or foure scoze yeares, than the pleasure of an Orchard.

Causes of
delight in an
Orchard.

What can your eye desire to see, your eares to heare, your mouth to taste, or your nose to smell, that is not to be had in an Orchard, with abundance and variety? What moze delight- some than an infinite varietie of sweet smelling flowers? deck- ing with sundry coloures, the Greene mantle of the Earth, the vniuersall Mother of vs all, so by them bespotted, so dyed, that all the world cannot sample them, and wherein it is moze fit to admire the Dyer, than imitate his workmanship. Colouring not onely the earth, but decking the ayze, and sweetning euery bzeath and spirit.

Flowers.

The Rose red, damaske, veluet, and double double prouince Rose, the sweet muske Rose double and single, the double and single white Rose. The faire and sweet senting Woodbinde, double and single, and double double. Purple Cowslips, and double Cowslips, and double double Cowslips. Primrose double and single. The Violet nothing behinde the best, for smelling sweetly. And 1000. moze will prouoke your content.

And

And all these, by the skill of your Gardiner, so comely, and Borders and
orderly placed in your Borders and Squares, and so intermin. squares.
gled, that none looking thereon, cannot but wonder, to see, what
Nature corrected by Art can doe.

When you behold in diuers corners of your Orchard Mounts.
Mounts of Stone, or wood curiously wrought within and with- Whence
out, or of earth couered with fruit-trees: Kentish Cherry, you may
Damsons, plummis, &c. With staires of precious workman- shoote a
ship. And in some corner (or mo) a true Dyall or Clocke, and Bucke.
some Anticke workes, & especially siluer-sounding Musique, Dyall.
mixt Instruments and voices, gracing all the rest: How will Musique.
you be rapt with delight?

Large Walks, broad & long, close and open, like the Tempe Walkes.
groves in Thessalie, raised with gravel and sand, hauing seats Seats.
and banks of Camomile, all this delights the minde, & brings
health to the body.

View now with delight the workes of your owne hands, Order of
your fruit trees of all sorts, loaden with sweet blossomes, and trees.
fruit of all tastes, operations, and colours: your trees standing
in comely order which way soeuer you looke.

Your borders on euery side hanging and drooping with Fe-
berries, Raspberries, Barberries, Currans, and the rootes of
your trees powdered with Strawberries, red, white, and
greene, what a pleasure is this? Your Gardiner can frame
your lesser wood to the shape of men armed in the field, ready Shape of
to giue battell: or swift running Greyhounds: or of well sen- men and
ted and true running Hounds, to chase the Deere, or hunt the beasts.
Hare. This kinde of hunting shall not waste your coyne, nor
much your coyne.

Mazes well framed a mans height, may perhaps make your Mazes.
friend wander in gathering of berries, till hee cannot recouer
himselke without your helpe.

To haue occasion to exercise within your Orchard: it shall Bowle
be a pleasure to haue a Bowling Alley, or rather (which is Alley.
more manly, and more healthfull) a paire of Butts, to stretch Butts.
your armes.

Rosemary and sweet Eglantine are seemely ornaments Hearbs.
about a Doore or Window, so is Woodbinde.

Looke Chap. 5. and you shall see the forme of a Con- Conduit.
duit.

duit. If there were two or more, it were not amisse.

Riuer.

And in mine opinion, I could highly commend your Orchard, if either thorough it, or hard by it there should runne a pleasant Riuer with siluer streames: you might sit in your Mount, and angle a peckled Trout, or sleightie Cele, or some other Fish. Or Moats, whereon you might row with a Boat, and fish with Nets.

Moats.

Bees.

Stoore of Bees in a dry and warme Bee-house, comely made of Firboords, to sing, and sit, and feed upon your flowers and sprouts, make a pleasant noyse and sight. For cleanly and innocent Bees, of all other things, loue and become, and thriue in an Orchard. If they thriue (as they must needs, if your Gardiner be skilfull, & loue them: for they loue their friends, and hate none but their enemies) they will, besides the pleasure, yeeld great profit, to pay him his wages. Yea, the increase of twenty Stocks or Stooles, with other fees, will keep your Orchard. You need not doubt their stings, for they hurt not whom they know, and they know their keeper and acquaintance. If you like not to come amongst them, you need not doubt them: for but neere their stoore, and in their owne defence, they will not fight, and in that case onely (and who can blame them?) they are manly, and fight desperately. Some (as that Honourable Lady at Hacknes, whose name doth much grace mine Orchard) vse to make seats for them in the Stone wall of their Orchard, or Garden, which is good, but wood is better.

Vine.

A Vine ouer-shadowing a seat, is very comely, though her Grapes with vs ripe slowly.

Birds.

Nightingale.

One chiefe grace that adorns an Orchard, I cannot let slip: A brood of Nightingales, who with their severall notes and tunes, with a strong delightfull voice, out of a weake body, will beare you company night and day. She loues (and liues in) hots of woods in her heart. She will helpe you to cleanse your trees of Caterpillers, and all noisome wormes and flies. The gentle Robin-red-breast will helpe her, and in Winter in the coldest stormes will keepe a part. Neither will the silly Wren be behinde in Summer, with her distinct whistle (like a sweet Recorder) to cheere your spirits.

Robin-red-breast.

Wren.

Black-bird.

Thrush.

The Black-bird and Thrush (for I take it the Thrush sings not,

not, but deuoures) sing loudly in a May morning, and delights the eare much (and you need not want their company, if you haue ripe Cherries or Berries, and would as gladly as the rest doe you pleasure:) But I had rather want their company than my fruit.

What shall I say? 1000. of delights are in an Orchard: and sooner shall I be weary, then I can reckon the least part of that pleasure, which one that hath and loues an Orchard, may finde therein.

What is there of all these few that I haue reckoned, which doth not please the eye, the eare, the smell, and taste? And by these senses as Organes, Pipes, and Windows, these delights are carried to refresh the gentle, generous, and noble minde.

To conclude, what toy may you haue, that you liuing to such an age, shall see the blessings of God on your labours while you liue, and leaue behinde you to your heires or successors (for God will make heires) such a worke, that many ages after your death, shall record your loue to your Country? And the rather, when you consider (Chap. 14.) to what length of time your worke is like to last.

Your owne
labour.

FINIS.

I

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THE
COUNTRY
HOUSEWIVES
GARDEN.

*Containing Rules for Herbs and Seeds
of common vse, with their times and seasons,
when to set and sow them.*

TOGETHER

With the Husbandry of Bees, published with secrets
very necessary for euery Housewife.

As also diuers new Knots for Gardens.

The Contents see at large in the last Page.

GEN. 2. 29.

*I haue giuen vnto you euery Herbe, and euery tree, that shall
be to you for meate.*



London printed for Roger Iackson. 1623.

THE
GOVERNMENT
HOUSEWIVES
GARDEN.

Containing Rules for Herbs and Seeds
of various kinds with their uses and seasons
when to be sown for them.

TOGETHER

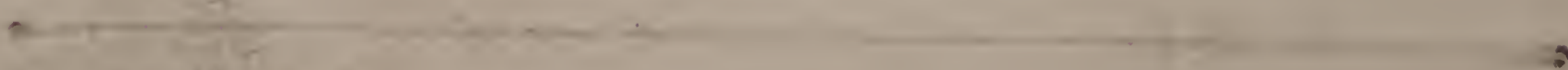
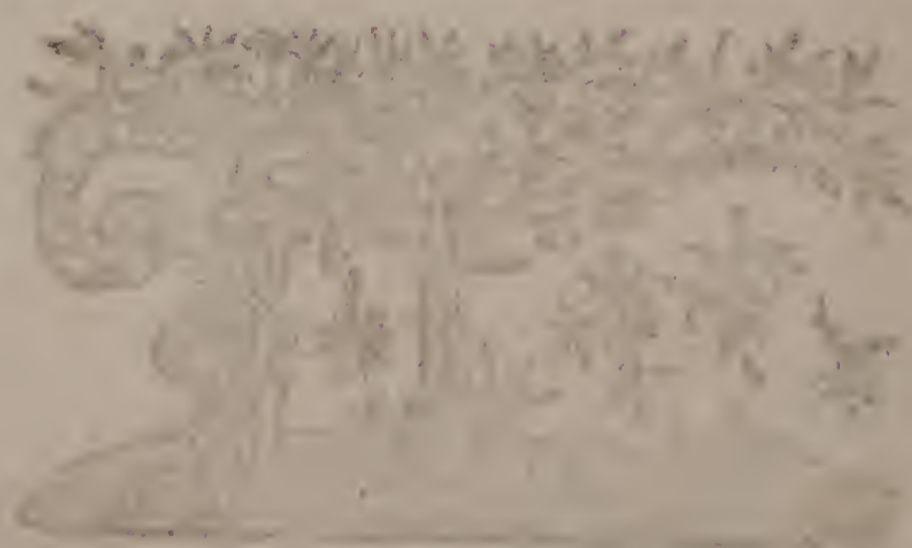
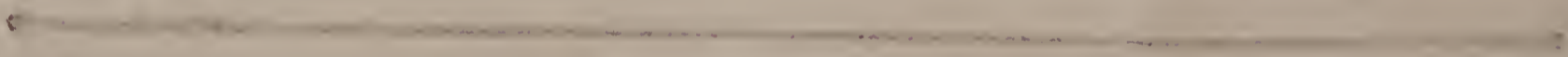
with the names of the plants, published with
an account of the same.

As the title is now known for certain.

The Omission is in the last page.



Printed by J. Sturges, at the Sign of the
Three Kings, in the Strand, 1752.



Printed by J. Sturges, at the Sign of the
Three Kings, in the Strand, 1752.



THE COUNTRY H O V S W I F E S G A R D E N.

CHAP. I.

The Soyle.



The soyle of an Orchard & Garden, differ onely in these three points: First, the Gardens soyle would be somewhat dryer, because hearbs beeing moze tender than trees, can neither abide moisture nor dzought, in such excessive measure, as trees; and therefore hauing a dryer soyle, & remedy is easie against dzought, if need be: water soundly, which may bee done with small labour, the compasse of a garden being nothing so great, as of an Orchard, and this is the cause (if they know it) that Gardiners raise their squares: but if moisture trouble you, I see no remedy without a generall danger, except in Hops, which de-
light much in a low and sappy earth.

Secondly, the soyle of a Garden would be plaine and leuell, at least euery square (for we suppose the square to be the fittest forme) the reason: the earth of a Garden wanting such helpes, as should stay the water, which an Orchard hath, and the roots of hearbs being short, and not able to fetch their liquoz from the bottome, are moze annoyed by dzought, and the Soyle being mellow and loose, is soone either washt away, or sends out his heart by too much drenching and washing.

Thirdly, if a garden soyle be not cleere of weeds, and namely,

The Country Housewifes Garden.

of grasse, the hearbs shall neuer thriue: for how should good hearbs prosper, when enill weeds waxe so fast: considering good hearbs are tender in respect of enill weedes: these being strengthened by nature, and the other by Art? Gardens haue small place in comparison, and therefore may the moze easily be fallowed, at the least one halfe yeere befoze, and the better dyetted after it is framed. And ye shall finde that cleane keeping doth not onely auoid danger of gathering weeds, but also is a spectall ornament, and leaues moze plentiful sap for your tender hearbs.

CHAP. II.

Of the Site.

I Cannot see in any sort, how the Site of the one should not be good, and fit for the other: The ends of both being one, good, wholesome, and much fruit ioyned with delight, vntlesse trees be moze able to abide the nipping frosts than tender hearbs: but I am sure, the flowers of trees are as soone perished with cold, as any hearbe except Pumpions, and Melons.

CHAP. III.

Of the forme.

It that which is said in the Orchards forme, suffice for a Garden in generall: but for speciall formes in squares, they are as many, as there are deuices in Gardiners bzaines. Neither is the wit and art of a skillfull Gardiner in this point not to be commended, that can worke moze variety for breeding of moze delightfull choise, and of all those things, where the owner is able and desirous to be satisfied. The number of formes, Mazes and Knots is so great, and men are so diuersly delighted, that I leaue euery Housewife to her selfe, especially seeing to set downe many, had been but to fill much paper; yet lest I depriue her of all delight and direction, let her view these few, choise, new formes, and note this generally, that all plots are square, and al are bozded about with Myrt, Raisins, Feaberries, Roses, Thorne, Rosemarie, Wre-flowers, Hop, Sage, or such like.

The Garden



The ground plot for Knots.



Cinkfoyle.

Flower
de luce.



The Tre-
foyle.





