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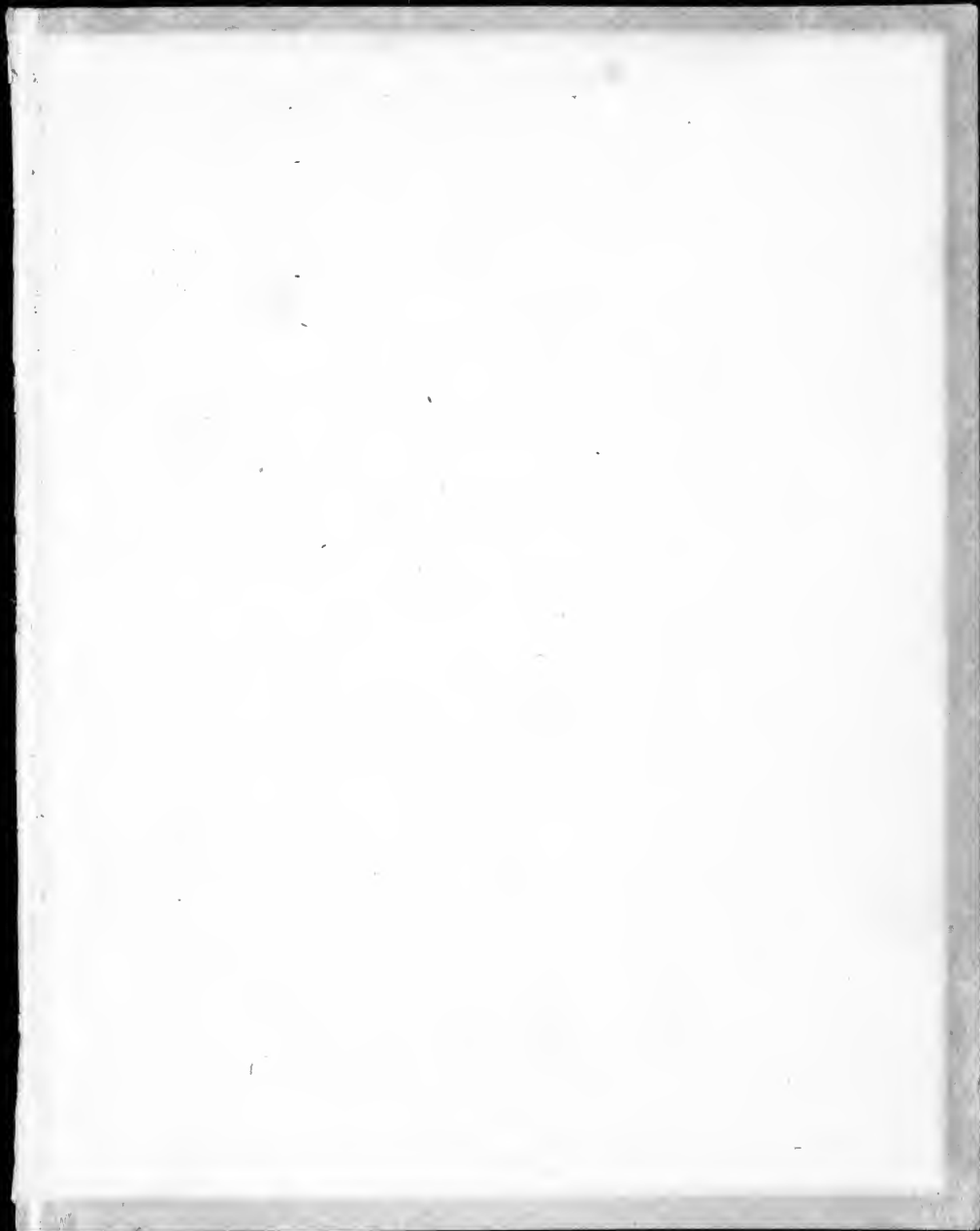


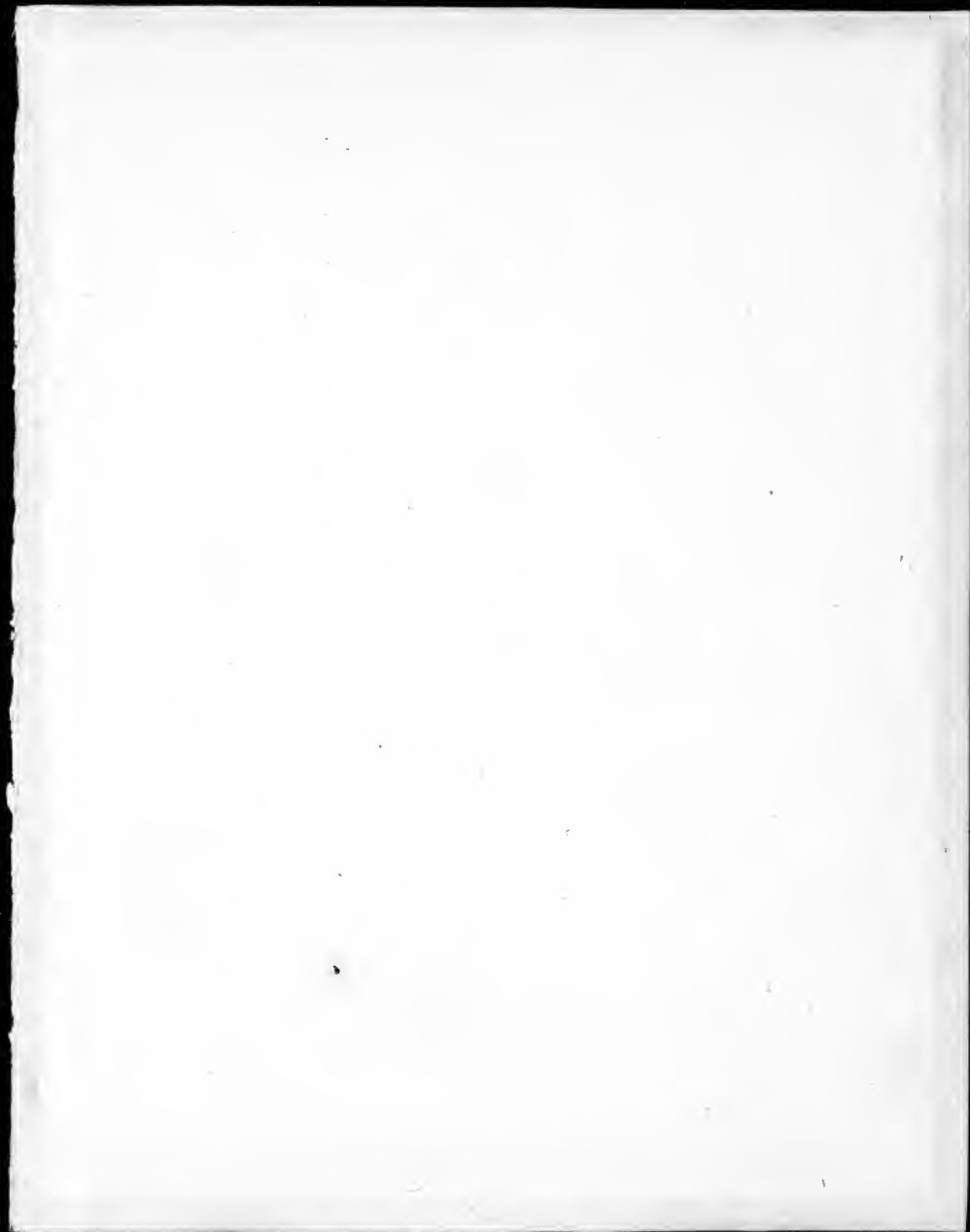
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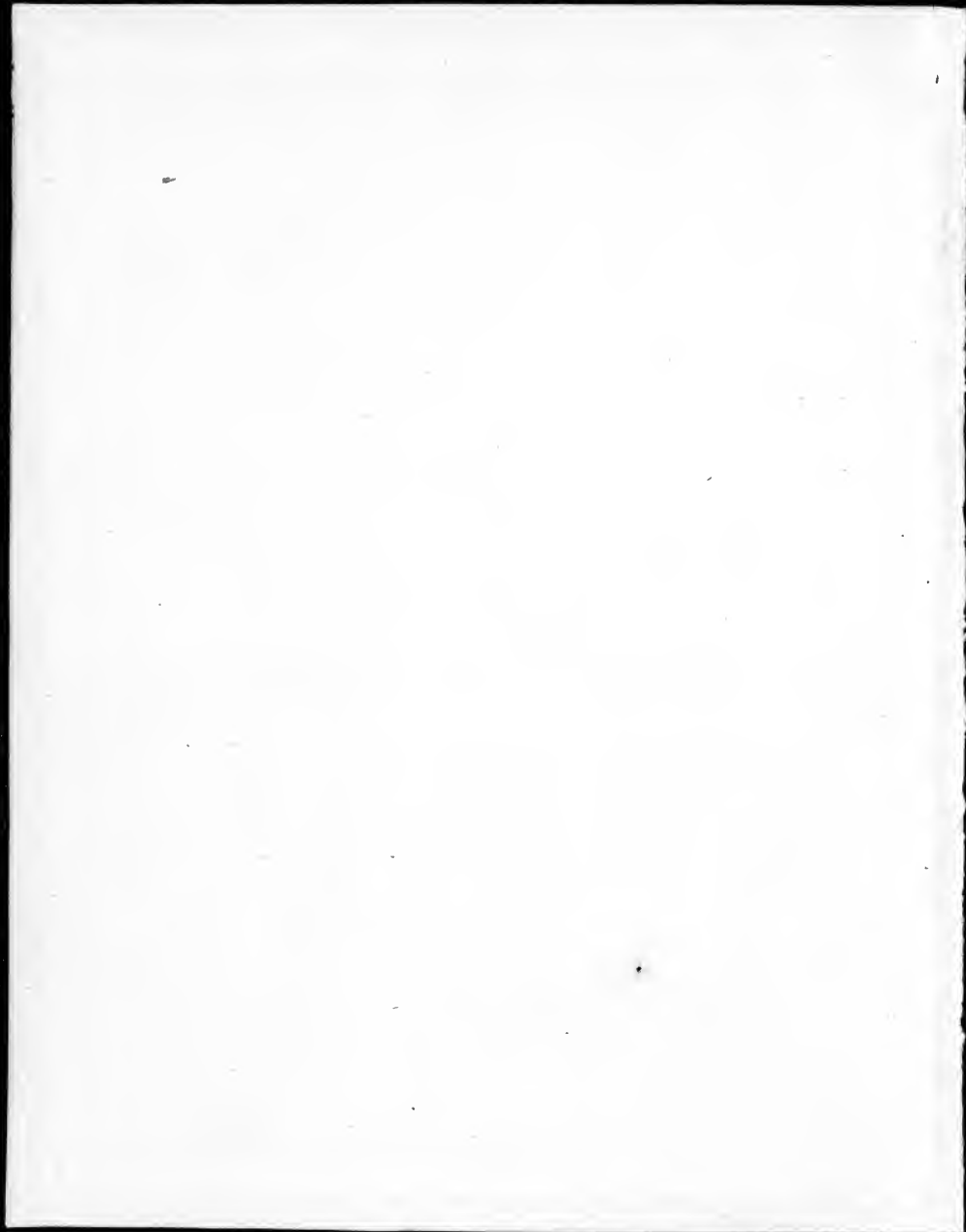
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THE
Country-Mans
NEW ART OF
PLANTING
AND
GRAFFING:

Directing the best way to make
any ground good for a Rich Orchard:

With the manner how to Plant and Graffe
all sorts of Trees, to Set and Sow Curnels; As
also the Remedies and Medicines concerning
the same: With divers other New Experiments:

Practised by LEONARD MASCALL.

Published by Authority. *anno 1651*



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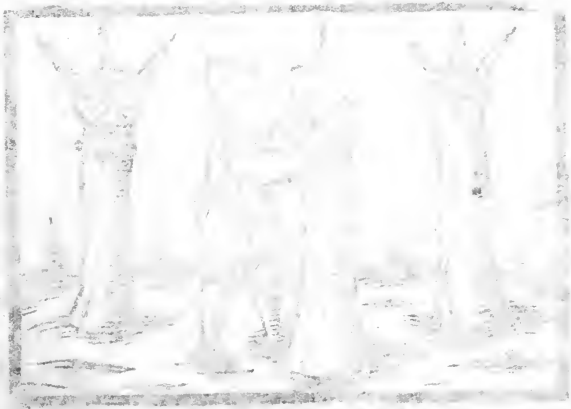
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PLANNING

GRAVING

Directing the way to make
any ground good for a final resting place

With the manner how to select a site
and the best way to prepare the same
for the reception of the dead
By James M. ...



Printed by ...



Instructions for the **PLANTER**
and **GRAFFER.**



Alwaies before ye do intend to Plant
or Graffe, it shall be meet to have
good experience in things meet
for this Art, as in knowing the Na-
tures of all Trees and Fruits, and
the differences of Climates, which
be contrary in every Land: also
to understand the East and West winds, with aspects
and Stars, to the end ye may begin nothing that
the Wind or Raie may oppresse, that your labour
be not lost, and to marke also and consider the dis-
position of the Elements that present yeere, for
all yeers be not of like operation, nor yet after one
fort: the Summer and Winter do not bear one face
on the Earth, nor the Spring time, alwaies Raie, or
Autumne alwaies moist: of this none have under-
standing, without a good and lively marking spirit,
few or none (without learning) may discern of the
varieties and qualities of the earth, and what it
doth aske or refuse. Therefore, it shall be good to
have understanding of the ground where ye do

B

plant,

To the Planters and Graffers.

plant, either Orchard or Garden with fruit : first it behooveth to make a sure defence, to the end that not onely rude persons and Children may be kept out, but all kind of hurtful Cattell, indamaging your Plants or Trees, as Oxen, Kine, Calves, Horses, Hogs, and Sheep, as the rubbing of Sheep doth greatly burne the Sap, and often doth kill young Trees and Plants, and where they are broken, or bruised with Cattell, it is doubtfull to grow after. It shall be good also to Set, Plant, or Graffe Trees all of like nature, and strength together, that the great and high Trees, may not overcome the low and weake, for when they be not of like height, they grow nor ripe nor your fruit so well at one time, but the one before the other : That earth which is good for Vines, is good also for other fruit.

Ye must digge your holes a yeere before ye plant, that the earth may be the better seasoned, mortified, and wax tender, both by Raine in Winter, and Heat in Sommer, that thereby your Plants may take root the sooner, if ye wil make your holes and plant both in a year, at the least, ye ought to make your holes two months before ye plant, and as soone as they be made, then it shall be good to burn of straw, or such like therein, to make your ground warme : the further ye make them asunder, the better your Trees shall beare, make your holes like unto a Fornace, that is, more straight in the mouth then beneath, whereby the roots may have the more roome, and by straightnesse of the mouth, the lesse Raine or cold shall enter thereby in Winter, and also lesse heat to the root in Sommer.

Looke

To the Planters and Graffers.

Looke also that the earth ye put to the roots, be neither wet, nor laid in water: they do commonly leave a good space betwixt every Tree, for the hanging boughes, being nigh together, ye cannot set roots, nor sow nothing so well under your trees, nor they will not bear fruit so well: Some loweth fortie foot, some thirtie foot, some thirtie between every Tree: Your plants ought to be greater then the handle of a shovell, and the lesser the better: See they be straight, without knots, or knobs, having a long straight graine of barke, which shall the sooner be apt to take Graffes, and when ye set branches or boughes of old Trees, choose the youngest and straightest, branch thereof, and those Trees which have borne yearlie good fruit before, take of those that grow on the Sunny side, sooner then those that grow in the covert or shadow, and when ye take up or alter your plants, ye shall note to what winds your plant is subject, and so let them be set againe, but those which have grown in drie grounds, let them be set in moist ground: Your plants ought to be cut off three foot long. If ye will set two or three plants together in a hole, ye must take heed the roots touch not one another, for then the one will perish and rot the other, or die by Wormes or other Vermin, and when you have placed your plants, in the earth, it shall be good to strike down to the bottome of every hole, two short stakes as great as your arme, on either side your hole, one: and let them appear but a little above the earth, that ye may (thereby In Sommer) give water unto the roots if need be. Your young plants, and rooted Trees are commonly set in Au-

To the Planters and Graffers.

time, from the first unto the fifteenth of *October*, yet some are of opinion better after *Alhallontide* unto *Christmas*, then in the Spring, because the earth will die too soone after, and also to set Plants without root after *Michaelmas*, that they may be the better mollified and gather root against the Spring, whereof ye shall find hereafter more at large. Thus much have I thought meet to declare vnto the Planters and Graffers, whereby they may the better avoid the occasion and dangers of Planting and Graffing, which may come often times through ignorance.

... the young ...
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The Table of all the principall things contained in
 this Booke, which ye shall hereafter finde
 by number and Lease.

Of the seven Chapters following.

CHAP. I.

*This Chapter treateth of the setting of Carnels,
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 and Service-trees.*

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The Art of
P L A N T I N G
A N D
G R A F F I N G.

CHAP. I.

This Chapter treateth of the setting of Currants, young Plum trees, and Pear trees, of Damson and Service trees.



Or to make young trees of the Pepins of Apples, Pears, Plums, and Services; First ye must prepare and make a great bed or quarter well replenished, blend or mixt with good fat earth, and placed well in the Sun, and to be well laboured and digged a good time before you do occupy it: and if ye can by any meanes, let it be digged very deep the winter before, in blending or mixing it well together with good fat earth, or else let it mixed almost the halfe with good dung: and so let it rot and ripen together with the earth. And see alwaies that plot be clean where you intend to plant, that no wild Cion or Plants do spring or grow thereon. Then in the moneth of *September, December* or thereabouts, take of the Pepins,

or Pomes of the said fruit at the first pressing out of your liquor, before the curnels be marred or bruised: then take out of them, and rub a few at once in a cloth, and dry them betwixt your hands, and take so many thereof as you shall thinke good: then make your bed square, faire and plaine, and sow your seeds thereon, then take and cover them with a rake lightly, or with earth, not putting too much upon them. This done, divide your beds into quadrants or squares, of four foot broad or thereabout, that when ye list ye may cleanse them from the one side to the other, without treading thereon. Then shall ye cover your Seeds or Pepins with fine earth, so sitting all over them, that then they may take the deeper and surer root, and keep the better in Winter following, and if ye list ye may rake them a little all over, so that ye raise not your Pepins above the earth.

Another way how one may take the Pepins at the first coming of the liquor or pressing.

YE shall choose the greatest and fairest curnels or Pepins, and take them forth at the first bruising of your fruit; then drie them with a cloth, and keep them all the Winter, untill S. Andrews tide: then a little after sow them in good earth, as thin as ye sow Peason, and then rake them over as the other.

How one ought to use his earth to sow Pepins without dunging.

BUt in this manner of digging (in the Spring) it is not so great need for to raise, or dig so deep as that which is dunged in Winter: but to divide your quarters, in covering your Pepins not so much with earth as those which be sowed with good dung, but when ye have sowed them, rake them a little all over.

How ye ought to take heed of Poultry for scraping of your beds or quarters.

AS soon as your Pepins be sown upon your beds or quarters, let this be done one way or other, that is, take good heed that your Hens do not scrape your beds or quarters: therefore stick them all over light and thin with bowes or thornes, and take good heed also to Swine, and all other Cattell.

How to weed or cleanse your beds or quarters.

When the Winter is past and gone, and that ye see your Pepins rise and grow, so let them increase the space of one year; but see to cleanse weeds, or other things which may hurt them, as ye shall see cause. And in the Summer when it shall waxe dry, water them in the evenings.

How one ought to pluck up the wild Cions.

When these wild Cions shall be great, as of the growth of one year, ye must then pluck them up all in the Winter following, before they do begin to spring againe: Then shall ye set them and make of them a wild Orchard as followeth.

C H A P. II.

This Chapter treateth how one shall set againe the small wild trees, which come of Pepins, when they be first pluckt up.

For the bastard or wild trees, incontinent as soone as they be pluckt up, ye must have of other good earth well trimmed and dunged, and to be well in the Sun, and well prepared and drest, as it is said already, of the Pepins.

How to dung your Bastard or wild young trees which come of Pepins.

About Advent (before Christmas) ye must dig and dung well the place whereas ye will set them, and make your square of earth even and plaine, so large as ye shall thinke good, then set your wild trees so far one from another as ye thinke meet to be graft, so that they may be set in even rankes and in good order, that when need shall require, ye may remove or renew any of them or any part thereof.

How ye ought in re-planting or setting, to cut off in the midst the principall great root.

In what part soever ye do set your trees, ye must cut off the great master root, within a foot of the stock, and all other big roots, so that ye leave a foot long thereof, and so let them be set, and

make your rankes crosse-wise one from another halfe a foot, or thereabouts, and ye must also see that there be of good dung more deep and lower then ye do set your trees, to comfort the said roots withall.

How you ought to set your trees in ranke.

YE shall set your small young trees in rankes, halfe a large foot one from another: and let them be covered as ye do set them, with good fat earth all over the roots.

How to make the space from one ranke to another.

YE shall leave between your rankes, from one ranke to another, one foot, or thereabouts, so that ye may passe between every ranke for to cleanse them if need require, and also to graffe any part or parcell thereof when time shall be meet. But ye must note, in making thus your rankes, ye shall make as many allies as rankes. And if ye thinke it not good to make so many allies, then divide those into quarters of five foot broad, or thereabouts, and make and set four rankes (in each quarter of the same) one foot from another, as ye use to set great Cabbage. And as soon after as ye have set them in rankes and good order, as is aforesaid, then shall ye cut off all the sets even by the ground. But in thus doing, see that ye do not pluck up or loofe the earth which is about them: or if ye will, ye may cut them before ye do set them in rankes; If ye do so, see that ye set them in such good order, and even with the earth, as is aforesaid. And it shall suffice also to make your rankes as ye shall see cause. And looke that ye furnish the earth all over with good dung, without mingling of it in the earth, nor yet to cover the said plants withall, but strowed betwixt: and ye must also look well to the cleansing of weeds, graffe, or other such things which will be a hurt to the growth of the Plants.

How to water Plants when they wax dry.

IT shall be good to water them when the time is dry: in the first year: Then when they have put forth new Cions, leave no more growing but that Cion which is the pincipall and fairest, upon every stock one: all the other cut off hard by the stock: and ever as there do grow small twigs about the stock, ye shall (in the moneth of *March* and *April*) cut them all off hard by the stock. And if ye then stick by every plant a pretty wand, and so bind them with

with willow barke, brier, or Oliers, it shall profit them much in their growth. Then afters five or six years growth, when they be so big as your finger, or thereabouts, ye may then remove any of them whereas you will have them grow and remaine.

How one ought to remove trees and to plant them againe.

THe manner how ye ought to remove trees, is shewed in the sixt Chapter following: then about two or three year after their removing, ye shall graffe them, for then they will be the better rooted. As for the others which ye leave still in rankes, ye may graffe them whereas they stand, as ye shall see cause good. When ye have plucked up the fairest to plant in other places (as is aforesaid) the manner how to Graffe them, is shewed in the fift Chapter following. But after they shall be so graft, in what place soever it be, ye shall not remove or set them in other places againe, untill the Graffes be well closed upon the head of the wild stock.

When the best time is to re-plant or remove:

WHen the head of the stock shall be all over closed about the graffes, then ye may when ye will, transplant and remove them (at a due time) where they shall continue. For with often moving, ye shall do them great hurt in their roots, and be in danger to make them die.

Of negligence and forgetfulnesse.

IF peradventure ye forget (through negligence) and have let small Cions two or three years grow about the roots of your stocks unplucked up, then if ye have so done, ye may well pluck them up and set them in rankes, as the other of the Pepins. But ye must set the rankes more large that they may be removed without hurting of each others roots: and cut off all the small twigges above as need shall require, though they be set or grafted. Order them also in all things as those small Cions of a years growth.

It is not so convenient to graffe the Service tree, as to set him.

Whercas ye shall see young Service trees, it shall be most profit in setting them; for if ye do graffe them, I believe ye shall win nothing thereby. The best is onely to pluck up the young Bastard trees when they are as great as a good walking-staffe; then proine or cut off their branches and carry them to set, whereas they may

may be no more removed: and they shall profit more in setting then grafting.

Some trees without grafting bring forth good fruit, and some other being grafted be better to make Sider of.

It is here to be marked, that though the Pepins be sowed of the Pomes of Pears and good Apples, yet ye shall find that some of them do love the tree whereof they came: and those be right, which have also a smooth barke, and as faire as those which be grafted: the which if ye plant or set them thus growing from the master root without grafting, they shall bring as good fruit, even like unto the Pepin whereof he first came: But there be other new sorts commonly good to eat, which be as good to make Sider of, as those which shall be grafted for that purpose.

When you list to augment and multiply your trees.

After this sort ye may multiply them, being of divers sorts and diversities, as of Pears, or Apples, or such like. Notwithstanding, whensoever you shall find a good tree thus come of the Pepin, as is aforesaid, so shall ye use him. But if ye will augment trees of themselves, ye must take Graffes and so graffe them.

Of the manner and changing of the fruit of the Pepin tree.

Whensoever ye do replant or change your Pepin trees from place to place, in so removing often the stock, the fruit thereof also changes: but fruit which doth come of grafting, doth alwaies keep the forme and nature of the tree whereof he is taken: for as I have said, as often as the Pepin trees be removed to a better ground, the fruit thereof shall be so much amended.

How one ought to make good Sider.

Here is to be noted, if ye will make good Sider of what fruit soever it be, being Pears or Apples, but specially of good Apples, & wild fruit, have alwaies a regard unto the ripening thereof; so gathered dry, then put them in dry places, on boords in heaps, covered with dry straw, and whensoever ye will make Sider thereof, chuse out all those that are black, bruised, and rotten Apples, and throw them away, then take and use the rest for Sider. But here to give you understanding, do not as they do in the Country of

Meniz,

Memz, which do put their fruit gathered into the middest of their Garden, in the raine and mistings, upon the bare earth, which will make them to lose their force and vertue, and doth make them also withered and tough; and lightly a man shall never make good Sider that shall come to any purpose, or good profit thereof.

To make an Orchard in few years.

SOME do take straight slips, which do grow from the roots, or of the sides of the Apple trees, about *Michaelmas*, and do so plant or set them (with Oates) in good ground, whereas they shall not be removed, and so graffe (being well rooted) thereon. Other some do take and set them in the Spring time (after *Christmas*) in like wise, and do graffe thereon when they be well rooted: and both do spring well. And this manner of way is counted to have an Orchard the soonest. But these trees will not indure past twenty or thirty years.

C H A P. III.

This Chapter is of setting Trees of Nuts.

How one ought to set trees which come of Nuts.

OR to set trees which come of Nuts: when ye have eaten the fruit, looke that ye keep the Stones and Curnels thereof, then then let them be dried in the wind, without the vehemency of the Sun, so reserve them in a box and use them as before.

Of the time when ye ought to plant or set them.

YE shall plant or set them in the beginning of Winter, or afore *Michaelmas*, whereby they may the sooner spring out of the earth. But this manner of setting is dangerous: for the Winter then comming in, and they being young and tender in coming up, the cold will kill them. Therefore it shall be best to stay and reserve them till after Winter. And then before ye do set them, ye shall soke or steep them in Milke, or in Milke and Water, so long till they do sinke therein: then shall ye dry them and set them in good earth, in the change or increase of the Moon, with the small end upward, four fingers deep; then put some stick thereby to marke the place.

For to set them in the Spring time.

IF ye will plant or set your Nuts in the Spring time where ye will have them still to remain, & not to be removed, the best and most easie way is to set in every such place (as ye thinke good) three or four Nuts nigh together, and when they do all spring up, leave none standing but the fairest.

Of the dunging and deep digging thereof.

ALso whereas ye shall thinke good, ye may plant or set all your Nuts in one square or quarter together in good earth and dung, in such place and time as they use to plant. But see that it be well dunged, and also digged good and deep, and to be well mingled with good dung throughout; then set your Nuts three fingers deep in the earth, and halfe a foot one from another: ye shall water them often in the Summer when there is dry weather, and see to weed them, and digge it as ye shall see need.

Of Nuts and Stones like to the Trees they come of.

IT is here to be noted, that certain kind of Nuts and Curnels do love the Trees they came of, and their fruit is like unto them, when they be planted in good ground, and set well in the Sun; which be, the Walnuts, Chestnuts, all kind of Peaches, Figs, Almonds and Apricots; all these do love the Trees they came of.

Of the planting the said Nuts in good earth, and in the Sun.

ALL the said Trees do bring as good fruit of the said Nuts, if they be well planted, and set in good earth, and well in the Sun, as the fruit and Trees they first came of.

Why fruit shall not have so good savour.

IF ye plant good Nuts, good Peaches, or Figs in a Garden full of shadow, the which hath afore loved the Sun; as the Vine doth, for lack thereof, their fruit shall not have so good savour, although it be all of one fruit: and likewise so it is with all other fruit and trees; for the goodnesse of the earth, and the faire Sun, doth preserve them much.

Planting and Graffing.

9

For to set the Pine tree.

FOR to set the Pine tree, ye must set or plant them of Nuts, in *March*, or about the shoot of the sap, not lightly after; ye must also set them where they may not be removed after, in holes well digged, and well dunged, not to be transplanted or removed again, for very hardly they will shoot forth Cions, being removed, especially if ye hurt the master root thereof.

For to set Chery trees.

FOR to set sower Cherries which do grow commonly in Gardens, ye shall understand they may well grow of stones, but better it shall be to take of the small Cions which do come from the roots: then plant them, and sooner shall they grow then the stones, and those Cions must be set when they are small, young and tender, as of two or three years growth; for when they are great, they profit not so well: and when ye set them, ye must see to cut off all the bughes.

Trees of Bastard and wild Nuts.

THERE be other sort of Nuts, although they be well set in good ground, and also in the Sun, yet will they not bring halfe so good fruit as the other, nor comonly like unto those Nuts they came of, but be a bastard wild or sower fruit, which is the *Filbert*, small *Nuts*, of *Plums*, of *Cheries*, and the great *Apricois*: therefore if ye will have them good fruit, ye must set them in manner and forme following.

How to set Filberds or Hasell trees.

FOR to set Filberds or Hasels, and to have them good, take the small wands that grow out from the root of the Filberd or Hasell tree (with short hairy twig:) and set them, and they shall bring as good fruit as the tree they came of: it shall not be needfull to proine, or cut off the branches thereof when ye set them, if they be not great; but those that ye do set, let them be of two or three years growth, and if ye shall see those Cions which ye have planted, not to be faire and good, or do not grow and prosper well, then (in the spring time) cut them off hard by the root, that other small Cions may grow thereof.

To set Damsons or Plum trees.

IN setting Damsons or Plum trees, which fruit ye would have like to the tree they came of: if the said trees be not graft before, ye shall take only the Cions that grow from the root (of the old stock)

which groweth with small twigs, and plant or set them: and their fruit shall be like unto the trees they came of.

To take Plum gresses, and graffe them on other Plum trees.

And if your Plum trees be graft already, and have the like fruit that ye desire, ye may take your gresses thereof, and graffe them on your Plum trees, and the fruit that shall come thereof, shall be as good as the fruit of the Cions which is taken from the root, because they are much of like effect.

To set all sorts of Cherries.

TO set all sorts of great Cherries, and others, ye must have the gresses of the same trees, and graffe them on other Chery trees, although they be of sower fruit; and when they are so graft, they will be as good as the fruit of the tree whereof the graffe was taken: for the stones are good to set, to make wild Cions, or plants to graffe on.

The manner how one may order both Plum trees and Chery trees.

FOR as much as these are two kind of trees, that is, the Chery and the Plum tree; for when they be so graft, their roots be not so good, nor so free as the branches above; wherefore the Cions that do come from the roots, shall not make so good and franke trees of; It is therefore to be understood, how this manner and sort is to make franke trees, that may put forth good Cions in time to come, which is, when they be great and good; then if ye will take those Cions, or young sprigs from the roots, ye may make good trees thereof, and then it shall not need to graffe them any more after, but to augment one by the other, as ye do the Cions from the root of the Nut, as is afore said and ye shall do as followeth.

How to graffe Plum trees, and Chery trees.

YE may well graffe Plum trees, and great Chery trees, in such good order as ye lust to have them, and as hereafter shall be declared in the fift Chapter following: for these would be grafted while they are young and small, and also graft in the ground, for thereby one may dresse and trim them the better, and put one graffe in each stock of the same. Cleave not the heart, but a little on the one side, nor yet deep, or long open.

How ye must proine or cut your trees.

WHen your gresses be well taken on the stock, and that the gresses do put forth faire & long, about one years growth, ye may proine or cut the branch off, commonly in the Winter, (when

they proine their Vines) a foot lower, to make them spread the better: then shall ye mingle all through with good fat earth, the which will draw the better to the place, which ye have so proined or cut.

The convenientest way to cleanse and proine, or dresse the roots of trees.

And for the better cleansing and proining trees beneath, ye shall take away all the weeds, and graffe about the roots; then shall ye dig them so round about, as ye would seem to pluck them up, and shall make them halfe bare; then shall ye enlarge the earth about the roots; and whereas ye shall see them grow faire and long, place or couch them in the said hole and earth againe: then shall ye put the cut end of the tree where it is graft, somewhat lower then his roots were, whereby his Cions so graft shall spring so much the better.

When the stock is greater then the graffes.

When as the tree waxeth, and swelleth greater beneath the grafting, then above; then shall ye cleave the roots beneath, and wreath them round, and so cover them againe. But see ye break no root thereof, so will he come to perfection, But most men do use this way: if the stock wax greater then the graffes, they do slit downe the barke of the graffes above, in two or three parts, or as they shall see cause; and so likewise, if the graffes wax greater above then the stock, ye shall slit down the stock accordingly, with the edge of a sharp knife. This may well be done at any time in *March, April, and May*, in the increase of the Moon, and not lightly after.

The remedy when any bough or member of a tree is broken.

If ye shall chance to have boughes, or members of trees broken, the best remedy shall be to place those boughes or members right soon againe, (then shall ye comfort the roots with good fat earth) and bind fast those broken boughes or members, both above and beneath, and so let them remaine unto another year, till they may close and put forth new Cions.

When a member or bough is broken, how to proine them.

Whereas ye shall see under or above superfluous boughes, ye may cut or proine off, (as ye shall see cause) all such boughes hard by the tree, at a due time, in the Winter following. But leave all the principall branches; and whereas any are broken, let them be cut off beneath, or else by the ground, and cast them away: thus

must ye do yearly, or as ye shall see cause, if ye will keep your trees well and faire.

How one ought to enlarge the hole about the Trees root.

IN proining your trees, if there be any roots, ye must enlarge them in the hole, and so wreath them, as is aforesaid, and ute them without breaking, then cover them againe with good fat earth, which ye shall mingle in the said hole, and it shall be best to be digged all over a little before, and see that no branch or root be left uncovered; and when you have thus dressed your trees, if any root shall put forth, or spring hereafter out of the said holes, in growing, ye may so proine them as ye shall see cause, in letting them so remaine two or three years after, untill such time as the said grasses be sprung up, and well branched.

How to set small staves by to strengthen your Cions.

TO avoide danger, ye shall set or prick small staves about your Cions, for fear of breaking, and then after three or four years, when they be well branched, ye may then set or plant them in good earth, (at the beginning of Winter) but see that ye cut off all the small branches hard by the stock, then ye may plant them where ye thinke good, so as they may remaine.

In taking up Trees, note.

YE may well leave the master root in the hole. (when ye digge him up) if the removed place be good for him, cut off the master root by the stub, but pare not off all the small roots, and so plant him, and he shall profit more thus, then others with all their master roots. When all trees be great, they must be dis-branched, or boughes cut off, before they be set againe, or else they will hardly prosper. If the trees be great, having great branches or boughes, when ye shall digge them up, ye must dis-branch them before ye set them againe: for when trees shall be thus proined, they shall bring great Cions from their roots, which shall be franke and good to re-plant, or set in other places, and shall have also good branches and roots, so that after it shall not need to graffe them any more, but shall continue one after another to be free and good.

How to couch the roots when they are proined.

IN setting your trees againe, if ye will disse the roots of such as ye have proined, or cut off the branches before, ye shall leave all such small roots which grow on the great root, and ye shall so place those roots in re-planting againe not deep in the earth, so that they

may

may soon grow, and put forth Cions: which being well used, ye may have fruit so good as the other afore mentioned, being of three or four years growth, as afore is declared.

What trees to proine.

THis way of proining is more hard for the great Chery (called Healmier) then for the Plum tree. Also it is very requisite and meet for those Cions, or trees, which be graft on the wild sower Chery tree, to be proined also for divers and sundry causes.

Why the sower Chery dureth not so long as the Healmier or great Chery.

THe wild and sower Chery, of his owne nature will not so long time endure; (as the great Healmie Chery) neither can have sufficient sap to nourish the Graffes, as the great Healmie Chery is graft; therefore when ye have proined the branches beneath, and the roots also, so that ye leave roots sufficient to nourish the tree, then set him. If ye cut not off the under roots the tree will profit more easily, and also be lighter to be known, when they put forth Cions from the root of the same, the which ye may take hereafter.

To graffe one great Chery upon another.

YE must have respect unto the Healmie Chery, which is graft on the wild Gomire (which is another kind of great Chery) and whether you do proine them or not, it is not material: for they dure a long time. But ye must see to take away the Cions, that do grow from the root of the wild Gomire, or wild Plum tree, because they are of nature wild, and do draw the sap from the said trees.

Of deep setting or shallow.

SEt your stocks or trees somewhat deeper on the high grounds, when in the vallies, because the Sun (in Summer) shall not dry the root: and in the low ground more shallow, because the water (in Winter) shall not drowne or annoy the roots; Some do marke the stock in taking it up, and to set him againe the same way, because he will not alter his nature: so likewise the graffes in graffing.

C H A P. IV.

This Chapter sheweth how to set other Trees which come of Wild Cions, pricked in the earth without roots: and also of proining the meaner Cions.

Trees take root prickt of branches.

Here be certain which take root, being pricked of branches prointed of other Trees, which be the Mulbery, the Fig tree, the Quince tree, the Service tree, the Pomgranate tree, the Apple tree, the Damson tree, and divers sorts of other Plum trees, as the plum tree of Paradise, &c.

How one ought to set them.

FOr to set these sorts of Trees, ye must cut off the Cions, twigs or boughes, betwixt Alhallontide and Christmas, not lightly after. Ye shall choose them which be as great as a little staffe or more; and look whereas ye can find them fair, smooth, and straight, and full of sap withall, growing of young trees, as of the age of three or four years growth, or thereabouts, and looke that ye take them so from the Tree with a broad Chesse, that ye break not or loose any part of the barke thereof, more then halfe a foot beneath, neither of one side or other: then proine or cut off the branches, and prick them one foot deep in the earth, well digged and ordered before.

How to bind them that be weak.

THose plants which be slender, ye must proine or cut off the branches, then bind them to some stake or such like to be set in good earth, and well mingled with good dung, and also to be well and deeply digged, and to be set in a moist place, or else to be well wared in Summer.

How one ought to digge the earth for to set them in.

AND when that ye would set them in the earth, ye must first prepare to dig it, and dung it well throughout a large foot deep in the earth. And when as ye will set them every one in his place made (before) with a crow of Iron, and for to make them take root the better, ye shall put with your Plants, wated Oates or Barly, and so ye shall let them grow the space of three or four years, or
when

when they shall be well branched, then ye may remove them; and if ye break off the old stubby roots and set them lower, they will last a long time the more. If some of those plants do chance to put forth Cions from the root, ye must pluck them up though they be tender, and set them in other places.

Of Cions without roots.

IF the said Plants have Cions without roots, which come from the tree root beneath, then cut them not till they be of two or three years growth; by that time they will gather roots to be planted in other places.

To plant the Fig tree.

THE said plants taken of Fig trees grafted, be the best. Ye may likewise take other sorts of Fig trees, and graffe one upon the other; for like as upon the wild trees do come the Pepins, even so the Fig, but not so soon to prosper and grow.

How to set Quinces.

LIkewise the nature of Quinces is to spring, if they be pricked (as aforesaid) in the earth, but sometimes I have grafted with great difficulty (saith mine Author) upon a white Thorne, and it hath taken and born fruit, faire to look on, but in taste more weake then the other.

The way to set Mulberies.

THEre is also another way to set Mulberies, which is as followeth; if you do cut in Winter certaine great Mulbery boughes or stocks asunder in the body (with a saw) in tronchions a foot long or more, then ye shall make a great furrow in good earth well and deep, so that you may cover well againe your tronchions, in setting them an end half a foot one from another, then cover them againe, that the earth may be above those ends, three or four fingers high; so let them remaine, and water them (in sommer) if need be sometimes, and cense them from all hurtfull weeds and roots.

Another of the same.

NOTE that within a space of time after, the said tronchions will put forth Cions, the which when they be somewhat sprigged, having two or three small twigs, then ye may transplant or remove them where ye list, but leave your tronchions stil in the earth, for they will put forth many motions, the which if they shall have scanty of root, then dung your tronchions with good earth, and likewise above also, and they shall do well.

This

The time meet to cut Cions.

YE shall understand that all trees which do commonly put forth Cions, if ye cut them in Winter, they will put forth and spring more abundantly, for then they be all good to set and plant.

To set Bush trees, or Gooseberies, or small Reisons.

THERE be many other kind of Bush trees, which will grow of Cions pricked in the ground, as the Goosebery tree, the small Reison tree, the Barbery tree, the Black thorne tree, these with many others, if planted in Winter, will grow without roots: ye must also proine them and they will take well enough: so likewise ye may prick (in *March*) of Oziers in moist grounds, and they will grow, and serue to many purposes for your garden.

CHAP. V.

This Chapter treateth of four manner of Graffings.

IT is to be understood that there be many waies of Graffings, whereof I have here onely put four sorts, the which be good, both sure and well proved, and easie to do, the which ye may use well in two parts of the year, and more, for I have (saith he) grafted in our ground, in every moneth, except *October* and *November*, and they have taken well, which I have (saith he) in the Winter begun to graffe, and in the Sommer graft in the Scutchion or shield according to the time, forward or slow: for certaine trees, specially young faire Cions have enough or more of their sap unto midd *August*, then others some at *Midsummer* before.

The first way to graffe all sorts of trees.

AND first of all it is to be noted, that all sorts of Franke trees, as also trees wild of nature, may be graft with graffes, and in the Scutchion, and both do take well, but especially those trees which be of like nature: therefore it is better so to graffe. Howbeit they may well grow and take of other sorts of trees, but certaine trees be not so good, nor will prosper so well in the end.

How to Graffe Apple trees, Pear trees, Quince trees, and Medlar trees.

THEY graffe the Pear graffe on the Pear stock, and Apples upon Apple stocks, Crab or Wilding stocks, the Quince and Medlar upon the White thorne: but most commonly they use to graffe one
Apple.

Apple upon another, and both Pears and Quinces they graffe on Hathorne and Crab stock. Another kind of fruit called in *French Sans'fey*, they use to graffe on the Willow stock; the manner thereof is hard to do, which I have not seen, therefore I will let passe at this present.

The graffing of great Cherries.

They graffe the great Chery, called in *French Heaulmiers*, upon the Crab stock, and another long Chery called *Guyniers* upon the wild or souer Chery tree; and likewise one Chery upon another.

To graffe Medlers.

The Mistle or Medler, they may be grafted on other Medlers, or on the white Thorne; the Quince is grafted on the white or black Thorne, and they do prosper well; I have grafted (saith he) the Quince upon a wild Pear stock, and it hath taken and borne fruit, well and good, but they will not long endure. I believe (saith he) it was because the graffe was not able enough to draw the sap from the Pear stock. Some graffe the Medler on the Quince, to be great. And it is to be noted, although the stock and the graffe be of contrary natures: yet notwithstanding, neither the Graffe nor Scutchion, shall take any part of the nature of the wild stock so grafted, though it be Pear, Apple, or Quince, which is contrary against many which have written, that if ye graffe the Medler upon the Quince tree, they shall be without stones, which is an abuse and mockery. For I have (saith he) proved the contrary my selfe.

Of divers kinds of graffes.

It is very true, that one may set a tree, which shall bear divers sorts of fruit at once, if he be grafted with divers kinds of graffes, as the black, white, and greene Chery together, and also Apples of other trees, as Apples and Pears together, and in the Scutchion, (ye may graffe) likewise of divers kinds also, as on Pears, Apricots, and Plums together, and of others also.

Of the graffing the Fig.

Ye may graffe the Fig tree upon the Peach tree or Apricot, but leave a branch on the stock, & there must be according for the space of years, for the one shall change sooner then the other. All trees above said, do take very well being grafted one with the other. And I have not known, or found of any others, howbeit (saith he)

I have curiously sought and proved, because they say one may graffe in Coleworts, or on Elmes, the which I thinke are but jests.

Of the great Apricots.

THe great Apricots they graffe in Sommer, in the Scutchion or shield, in the sap or barke of the lesser Apricot, and they be graffed on Peach trees, Fig trees, and principally on Damson or Plum trees, for then they will prosper the better.

Of the Service tree.

OF the Service tree they say and write, that they may hardly be graft on other Service trees, either on Apple trees, Pear or Quince trees: and I believe this to be very hard to do, for I have tried (saith he) and they would not prove.

The setting of Services.

Therefore it is much better to set them of Curnels, as it is aforesaid, as also in the second Chapter of Planting of Cions, or other great trees, which must be cut in Winter, as such as shall be most meet for that purpose.

Trees which be very hard to be graffed, in the shield or Scutchion.

ALL other manner of trees aforesaid, do take very well to be graffed with Cions, and also in the shield, except Apricots on Peaches, Almonds, Percigniers, the Peach tree, do take hardly to be graffed, but in the shield in Sommer, as shall be more largely hereafter declared. As for the Almond, Percigniers and Peaches, ye may better set them of Curnels and Nuts, whereby they shall the sooner come to perfection to be graffed.

How a man ought to consider those trees, which be commonly charged with fruit.

YE shall understand that in the beginning of graffing, ye must consider what sorts of trees do most charge the stock with branch and fruit, or that do love the Countrey or ground where you intend to plant or graffe them: for better it were to have abundance of fruit, then to have very few or none good.

Of trees whereof to chuse your graffes.

OF such trees as ye will gather your graffes to graffe with, ye must take them at the ends of the principal branches, which be also fairest and greatest of sap, having two or three fingers length of the old wood, with the new, and those Cions of eyes somewhat nigh together, are the best; for those which be long, or far one from another, be not so good for to bring fruit.

The Cions toward the East are best.

YE shall understand that those Cions which do grow on the East or Orient part of the tree, are best: ye must not lightly gather of the evill or slender graffes, which grow in the midst of the trees, nor any graffes which do grow within on the branches, or that do spring from the stock of the tree, nor yet graffes which be on very old trees, for thereby ye shall not lightly profit to any purpose.

To chuse your Trees for graffes.

AND when the trees whereas you intend to gather your graffes, be small and young, as of five or six years growth, do not take of the highest graffe thereof, nor the greatest, except it be of a small tree of two or three years, the which commonly hath too much of top or wood, otherwise not, for you shall but mar your graffing.

How to keep graffes a long time.

YE may keep graffes a long time good, as from *Alballontide* (so that the leaves be fallen) unto the time of graffing, if that they be well covered in the earth halfe a foot deep therein, and so that none of them do appear without the earth.

How to keep graffes before they are budded

YE shall not gather them except ye have great need, untill *Christmas* or thereabouts, and put them not in the ground nigh any walls, for fear of Moles, Mice, and water, marring the place and graffes. It shall be good to keep graffes in the earth before they begin to bud, when that ye will graffe betwixt the barke and the tree, and when the trees begin to enter into their sap.

How one ought to begin to graffe.

YE may well begin to graffe (in cleaving the stock) at *Christmas* or before, according to the coldnesse of the time, and principally the Healme or great Chery, Peares, Wardens, or forward fruit of Apples: and for Medlers it is good to tary untill the end of *January* and *February*, untill *March*, or untill such time as ye shall see trees begin to bud or spring.

When it is good graffing the wild stocks.

IN the spring time it is good graffing the wild stocks (which be great) betwixt the bark and the tree, such stocks as be of lateward spring, and kept in the earth before. The Damson or Plum tarieth longest to be graft: for they do not shew or put forth sap so soon as the others.

Marke if the tree be forward or not.

YE ought to consider alwayes, whether the tree be forward or not, or to be grafted soon or lateward, and to give him a graffe of the like haste or slownesse: even so ye must make the time, whether it be slow or forward.

When one will graffe, what necessaries he ought to be furnished withall.

WHensoever ye go to grafting, see ye be first furnished with grasses, clay and mosse clothes or barkes of fallow to bind likewise withall. Also ye must have a small saw, and a sharpe knife, to cleave and cut grasses withall. But it were much better if you should cut your grasses with a great penknife or some other like sharp knife, having also a small wedge of hard wood, or of Iron, with a hooked knife, and also a small mallet. And your wild stocks must be well rooted before ye do graffe them: and be not so quick to deceive your selves, as those which do graffe and plant all at one time; yet they shall not profit so well; for where the wild stock hath not substance in himselfe, much lesse to give unto the other grasses, for when a man thinkes sometimes to forward himselfe, he doth hinder himselfe.

Of grasses not prospering the first year.

YE shall understand, that very hardly your grasses shall prosper after if they do not profit or prosper well in the first year; for whensoever (in the first year) they profit well, it were better to graffe them somewhat lower then to let them so remaine and grow.

For to graffe well and sound.

AND for the best understanding of grafting in the cleft, ye shall first cut away all the small Cions above the body of the stock beneath; and before ye begin to cleave your stock, dresse and cut your grasses somewhat thick and ready; then cleave your stock, and as the cleft is small or great (if need be) part it smooth within; then cut your incision of your grasses accordingly, and set them in the clefts as even and as close as ye can possibly.

How to trim your grasses.

YE may graffe your grasses full as long as two or three trunchions, or cut grasses, which ye may likewise graffe withall very well, and be as good as those which do come of old wood, and oftentimes better, as to graffe a bough; for often it so happeneth, as a man shall find of Oylets or eyes hard by the old slender wood, yet
beter

better it were to cut them off with the old wood, and chuse a better and fairer place at some other eye in the same graffe, and to make your incision thereunder, as aforesaid, and cut your graffes in making the incision on the one side narrow, and on the other side broad, and the inner side thin, and the out side thick, because the outside (of your graffe) must joyne within the cleft, with the sap of the barke of the wild stock, and it shall be so set in. See also that ye cut it smooth as your clefts are in the stock, in joyning at every place both even and close, and especially the joynte or corners of the graffes on the head of the stock, which must be well and cleane pared before, and then set fast therein.

How to cut graffes for Cherries and Plums.

IT is not much requisite in the Healme Chery, for to joyne the graffes (in the stock) wholly throughout, as it is in others, or to cut the graffes of great Cherries, Damsons, or Plums, so thin and plaine as ye may other graffes, for these forts have a greater sap or pith within, the which ye must alwaies take heed in cutting it too nigh on the one side, or on the other, but at the end thereof chiefly to be thin cut and flat.

Note also.

ANd yet if the said incision be straighter and closer on the one side then on the other side, pare it where it is most meet, and where it is too straight open it with a wedge of Iron, and put in a wedge of the same wood above in the cleft, and thus may ye moderate your graffes as ye shall see cause.

How in graffing to take heed that the barke do not rise.

IN all kind of cutting your graffes, take heed to the barke of your graffes that it do not rise (from the wood) on no side thereof, and specially on the outside, therefore ye shall leave it thicker then the inner side: Also ye must take heed whenas the stocks do wreath in cleaving, that ye may joyne the graffe therein accordingly: the best remedy therefore is to cut it smooth within, that the graffe may joyne the better: ye shall also unto the greatest stock, chuse for them the greatest graffes.

How to cut your stock.

HOW much the more your stock is thin and slender, so much more ye ought to cut him lower, and if your stock be as great as your finger, or thereabouts, ye may cut him a foot or half a foot from the earth, and dig him about, and dung him with Goats

dung, to help him withall, and graffe him but with one graffe or Cion.

If the wild stock be great and slender.
IF your wild stock be great, or as big a good staffe, ye shall cut him round off, a foot or thereabouts above the earth, then set two good grasses in the head or cleft thereof.

Trees as great as ones arme.
WHen your stock is as great as your arme, ye shall saw him off three or four foot, or thereabouts, from the earth, for to defend him, and set in the head three grasses, two in the cleft, and one betwixt the barke and the tree, on that side where ye may have most space.

Great trees as big as your leg.
IF the stock be as big as your leg, or thereabouts, ye shall saw him faire and cleane off, four or five foot high from the earth, and cleave him acrossse (if ye will) and set in four grasses in the clefts thereof, or else one cleft onely, and set two grasses in both the sides thereof, and other two grasses betwixt the barke and the tree.

When the grasses be pinched with the stock.
YE must for the better understanding, marke the graffe betwixt the barke and the tree; for when the sap is full in the wood of wild stocks being great, then they do commonly pinch or wring the grasses too sore, if ye do not put a small wedge of greene wood in the cleft thereof, to help them withall against such danger.

How ye ought to cleave your stock.
Whensoever ye shall cleave your wild stocks, take heed that ye cleave them not in the midst of the heart or pith, but a little on the one side, which ye shall thinke good.

How to graffe the branches of great trees.
Whensoever ye would graffe great trees, as great as your thigh or greater, it were much better to graffe the branches thereof, then the stock or body; for the stock will rot before the grasses shall cover the head.

How to cut branches old and great.
IF the branches be too rude, and without order, the best shall be to cut them all off, and within three or four years after they will bring faire new Cions againe, and then it shall be best to graffe them,

them; and cut off all the superfluous and ill branches thereof.

How ye ought to bind your graffes throughout for fear of winds.

And when your graffes shall be growne, ye must bind them, for fear of shaking of the wind; and if the tree be free and good of himself, let the Cions grow still, and ye may graffe any part or branch ye will in the cleft, or betwixt the barke and the tree, either in the Scuthion, if your barke be faire and loose.

To set many graffes in one cleft.

When ye will put many graffes in one cleft, see that one incision (of your graffe) be as large as the other, not to be put into the cleft so slightly and rashly, and that one side thereof be not more open then the other, and that these graffes be all of one length: it shall suffice also, if they have three eyes on each graffe without the joynt thereof.

How to saw your stock before ye cleave him.

In sawing your stock, see that ye tear not the barke about the head thereof, then cleave his head with a long sharpe knife, or such like, and knock your wedge in the midit thereof, (then pare him on the head round about) and knock your wedge in so deep till it open meet for your graffes, but not so wide; then holding in one hand your graffe, and in the other hand your stock, set your graffe in close, barke to barke, and let your wedge be great above at the head, that ye may knock him out faire and easily againe.

If the stock cleave too much, or the barke do open.

If the stock do cleave too much or open the barke with the wood too low, then softly open your stock with your wedge, and see if your incision of your graffe be meet and just according to the cleft; if not, make it untill it be meet, or else saw him off lower.

How graffes never lightly take.

Above all things ye must consider the meeting of the two saps, betwixt the graffe and the wild stock, which must be set in just one with another: for ye shall understand, if they do not joyn, and the one delight with the other, being even set, they shall never take together, for there is nothing to joyne their increase, but onely the sap, recounting the one against the other.

How to set the graffes right in the cleft.

When the barke of the stock is thicker then the graffe, ye must take good heed, of the setting in of the graffe.

graffe in the cleft, to the end that his sap may joyne right with the sap of the stock, on the inside; and ye ought likewise to consider of the sap of the stocke, if he doe surmount the grasses on the out sides of the cleft too much, or not.

Of setting in the grasses.

Also ye must take good heed, that the grasses be well and clean set in, and joyne close upon the head of the stocke. Likewise that the incision which is set in the cleft, doe joyne very well with in on both sides, but some times it may doe service, when as the grasses doe draw too much from the stock, or the stock also, on the grasses doe put forth.

Note also.

When the stock is right, cloven, there is no danger in cutting the incision of the grasse, but a little straight rebated to the end thereof, that the sap may joyne one with the other, the better and closer together.

How ye ought to draw out your wedge.

When your grasses shall be well joyned with the stock, draw your wedge faire and softly forth, for feare of displacing your grasses, ye may leave within the cleft a small wedge of such green wood as is aforesaid, and ye shall cut it off close by the head of your stock, and so cover it with a barke as followeth.

To cover your clefts on the head.

When your wedge is drawn forth, put a green pill of thick barke of Willow, Crab, or Apple, upon your clefts of the stocks, that nothing may fall between: then cover all about the clefts on the stock head, too fingers thick with good clay, or nigh about that thickness, that no winde nor raine may enter. Then cover it round with good Moss, and then wreath it ever with clothes, or peels of willow, Brier or Oziars, or such like, then bind them fast, and stick certain long pricks on the grafts head amongst your Cions, to defend them from the Crowes, Jayes, or such like.

*How ye ought to see to the binding of
your Grasses*

But alwaies take good heed to the binding of your heads that they wax not slack, or shag, neither on the one side or other, but remaine fast upon the clay, which clay must remaine fast (likewise on the stock head) under the binding thereof, wherefore the said clay must be moderated in such sort as followeth.

How

How you ought to temper your clay.

THe best way therefore is to try your clay between your hands, for stones and such like, and so to temper it as ye shall thinke good, if so it require of moistnesse or drynesse, and to temper it with the haire of beasts: for when it drieth, it holdeth not (otherwise) so well on the stock, or if ye knead of Mosse therewith, or mingle Hay thin therewith: some do judge that the Moss doth make the tree moist; But I thinke (saith he) that cometh of the disposition of places.

To bush your graffe head.

WHen ye shall bind or wrap your graffe head with a band, take small thornes, and bind them within, for to defend your graffes from Kites or Crowes, or danger of other fowles, or prick sharpe white sticks thereon.

The second way to graffe high branches on trees.

THe second manner to graffe, is strange enough to many: This kind of graffing is on the tops of branches of Trees: which thing to make them grow lightly, is not so soon obtained: wherefoever they be graffed, they do onely require a faire young wood, a great Cion or twig, growing highest in the tree top, which Cions ye shall chuse to graffe on, of as many sorts of fruit as ye will, or as ye shall thinke good, which order followeth.

Take graffes of other sorts of trees, which you will graffe in the top thereof, then mount to the top of the tree which ye would graffe, and cut off the tops of all such branches, or as many as ye would graffe on, and if they be greater then the graffes, which ye would graffe, ye shall cut and graffe them lower as ye do the small wild stock aforesaid. But if the Cions that you cut be as great as your graffe that you graffe on, ye shall cut them lower betwixt the old wood and the new, or a little more higher or lower: then cleave a little, and chuse your graffes in the like sort, which ye would plant, whereof ye shall make the incision short, with the barke on both sides like, and as thick on the one side as the other, and set so ju^t in the cleft, that the barke may be even and close, as well above as beneath, on the one side as the other, and so binde him as is aforesaid. It shall suffice that every graffe have an oylet, or eye, or two at the most, without the joynt, for to leave them too long it shall not be good, and ye must dresse it with Clay and Mosse, and bind it, as is aforesaid. And likewise ye may Graffe these, as

ye do the little wild stocks, which should be as great as your grasses, and to graffe them, as ye do those with Sap like on both sides, but then ye must graffe them in the earth, as three fingers of, or thereabouts.

The manner of Graffing of grasses which may be set betwixt the barke and the Tree.

To graffe betwixt the barke and the Tree.

THIS manner of graffing is good, when Trees do begin to enter into their Sap, which is about the end of *February*, unto the end of *April*, and especially on great wild stocks which be hard to cleave, ye may set in four or five grasses in the head thereof, which grasses ought to be gathered afore, and kept close in the earth till then, for by that time aforesaid, ye shall scantly find a tree, but that he doth put forth or bud, as the Apple called *Capendu*, or such like. Ye must therefore saw these wild stocks more charily, and higher, so they be great, and then cut the grasses which ye would set together, so as you would set them upon the wild stock that is cleft, as is aforesaid. And the inclosed of your grasses must not be so long, nor so thick, and the barke a little at the end thereof must be taken away, and made in manner as a Launcet of Iron, and as thick on the one side as the other.

How to dresse the head, to place the grasses betwixt the barke and the tree.

AND when your grasses be ready cut, then shall ye clense the head of your stock, and pare it with a sharp knife, round about the barke thereof, to the end your grasses may joyne the better thereon; then by and by take a sharp penknife, or other sharp pointed knife, and thrust it downe betwixt the barke and the stock, so long as the incision of your grasses be, then put your grasses softly downe therein in the hard joynt: and see that it do fit close upon the stock head.

How to cover the head of your stock.

WHEN as ye have set in your grasses, ye must then cover it well about with good tough Clay and Mosse, as is said of the others, and then you must incontinent environ or compasse your head with small thorny bushes, and bind them fast thereon all about for fear of great birds, and likewise the wind.

Of the manner of graffing in the Shield or Scutchion.

THe fourth manner to graffe, which is the last, is to graffe in the Scutchion, in the sap, in Sommer, from about the end of the Moneth of *May*, untill *August*, when as trees be yet strong in sap and leaves, for otherwaies it cannot be done; the best time is in *June* and *July*, so it is some years when the time is very dry, that some Trees do hold their sap very long, therefore ye must tary till it returne.

For to graffe in Sommer so long as the trees be full leaved.

FOr to begin this manner of graffing well, ye must in Sommer when the trees be almost full of sap, and when they have sprang forth new shoots, being somewhat hardned, take a branch thereof in the top of the tree, the which ye will have graffed, and chuse the highest and the principallest branches, without cutting it from the old wood, and chuse thereof the principallest oylet or eye, or budding place, of each branch one, within which oylet or eye ye shall begin to graffe as followeth.

The big Cions are best to graffe.

Pricipally ye must understand, that the smallest and naughty oylets or buds of the said Cions be not so good to graffe, therefore chuse the greatest and best ye can find; first cut off the lease hard by the oylet, then ye shall trench or cut (the length of a barley corne) beneath the oylet round about the barke, hard to the wood, and so likewise above: then with the sharp point of a knife, slit it down halfe an inch beside the oylet or bud, and with the point of a sharpe knife softly raise the said shield or Scutchion round about, with the oylet in the middest, and all the sap belonging thereunto.

How to take off the shield from the wood.

And for the better raising your said shield or Scutchion from the wood, after that ye have cut him round about, and then slit him down, without cutting any part of the wood within, ye must then raise the side next you that is slit, and take the same shield betwixt your fingers and thumb, and pluck or raise it softly off, without breaking or brusing any part thereof, and in the opening or plucking it off, hold it with your finger hard to the wood, to the end the sap of the oylet may remaine in the shield, for if it go off (in plucking it) from the barke, and stick to the wood, your Scutchion is nothing worth.

To know your Scutchion or shield when he is good or bad.

And for the more easie understanding, if it be good or bad, when it is taken from the wood, looke within the said shield, and if ye shall see it crack, or open within, then it is of no value, for the chief sap doth yet remain behind with the wood, which should be in the shield, and therefore ye must chuse and cut another shield, which must be good and sound, as afore said, and when your Scutchion shall be well taken off from the wood, then hold it dry by the oylet or eye betwixt your lips, untill ye have cut and taken off the barke from the other Cion or branch, and set him in that place, and looke that ye do not foule or wet it in your mouth.

Of young trees to graffe on.

But ye must graffe on such trees, as be from the bignesse of your little finger, unto as great as your arme, having their barke thin and slender, for great trees commonly have their barke hard and thick, which ye cannot well graffe this way, except they have some branches with a thin smooth barke, meet for this way to be done.

How to set or place your shield.

Ye must quickly cut off round the barke of the tree that ye will graffe on, a little longer then the shield that ye set on, because it may joyn the sooner and easier, but take heed that in cutting off the barke, ye cut not the wood within.

Note also.

After the incision once done, ye must then cover both the sides or ends well and softly withall, with a little bone or horne, made in manner like a thin skin, which ye shall lay all over the joynts or closings of the said shield, somewhat longer and larger, but take heed for hurting or crushing the barkethereof.

How to lift up the barke, and to set your shield on.

This done, take your shield or Scutchion, by the oylet or eye that he hath, and open him faire and softly by the two sides, and put them straight way on the other tree, whereas the barke is taken off, and joyne him close barke to barke thereon; then plain it softly above and at both the ends with the thin bone, and that they joyne above and beneath barke to barke, so that he may feed well the branch of that tree.

How to binde on your shield.

THis done, ye must have a wreath of good hemp, to binde the said shield on his place: the manner to binde it is this, ye shall make a wreath of hemp together as great as a Goose quill, or thereabouts, or according to the bigness or smalness of your tree: then take your hemp in the midst, that the one halfe may serve for the upper halfe of the shield, in winding and crossing (with the hemp) the said shield on the branch of the tree, but see that ye binde it not too straight, for it shall let him from taking or springing, and likewise their sap cannot easily come or passe from the one to the other: and see also that wet come not to your shield, nor likewise the hemp that ye binde it withall: Ye shall begin to binde your Scutchion first behinde in the midst of your shield, in comming still lower and lower, and so recover under the oylet and taile of your shield, binding it nigh together, without recovering of the said oylet, then ye shall returne againe upward, in binding it backward to the midst where ye began. Then take the other part of the hempe, and binde so likewise the upper part of your shield, and increase your hemp as ye shall need, and so returne againe backward, and ye shall bind it so, till the fruits or clefts be covered (both above and beneath) with your said hemp, except the oylet and his taile, the which ye must not cover, for that taile will shed apart, if the shield doe take.

On one treee maye my graffe or put two or three shields.

Yee may very well if ye will, on every tree graffe two or three shields, but see that one be not right against another, nor yet of the one side of the tree; let your shields so remaine bound on the trees, one moneth or more, after they be graffed, and the greater the tree is, the longer to remaine and the smaller the lesser time.

The time to unbind your shield.

And then after one moneth, or six weeks past, ye must unbind the shield, or at the least cut the hemp behind the tree, and let it so remaine the winter next following, and then about the moneth of *March* or *Aprill* if ye will, or when ye shall see the sap of the shield put forth, then cut the branch off three fingers above the shield, or thereabouts.

How to cut and govern the branches graffed on the trees.

Then in the next yeere after that the Cions shall be well strengthened, and when they doe begin to spring, then shall ye cut them

them all hard of, by the shield above; for if he had cut them so nigh in the first yeare, when they began first to spring or bud, it should greatly hinder them against their increase of growing: also when those Cions shall put forth a faire wood, ye must binde and stay them in the midst, faire and gently with small wands, or such like, that the winde and weather hurt them not. And after this manner of grafting, which is practised in the shield or Scutchion, way ye may easily graffe the white Rose on the Red: and likewise ye may have Roles of divers colours and sorts, upon one branch or root. This I thought sufficient and meete to declare of this kinde of grafting at this present.

CHAP. VI.

This Chapter treateth of transplanting or altering of Trees.

The sooner yee transplant or set them, it shall be the better.



Ye ought to transplant or set your trees from *Alballontide* unto *March*, and the sooner the better, for as soone as the leaves are fallen from the trees, they be meet for to be planted, if it be not in a very cold or moitt place, the which then it were best for to tarry unto *January*, or *February*: to plant in the frost is not good.

To plant or set towards the South, or Sunnie place is best.

Afore ye doe pluck up your trees for to plant them, if yee will make the Southside of each tree, that when ye shall replant them, ye may set them againe as they stood before, which is the best way as some do say. Also if ye keepe them a certaine time, after they be taken out of the earth, before ye replant them againe, they will rather recover there in the earth, so they be not wet with raine, nor otherwise; for that shall be more contrary to them, then the great heat or drought.

How to cut the branches of trees, before they be set.

Whensoever ye shall set or replant your trees, first ye must cut off the boughes, and specially those which are great branches, in such sort that ye shall leave the small twigs or sprigs on
the

the stocks of your branch, which must be but a shaftment long, or somewhat more, or else, according as the tree shall require, which ye do set.

Apple trees commonly must be disbranched before they be replanted or set.

ANd chiefly the Apple trees, being Graffed or not Graffed, do require to be disbranched before they be set againe; for they shall prosper thereby, much the better: the other sorts of Trees may well passe unbranched, if they have not too great or large branches: and therefore it shall be good to transplant or set as soone after as the graffes are closed, on the head of the wild stock; as for small trees, which have but one Cion or twig, it needs not to cut them above, when they be replanted or removed.

All wilde stocks must be disbranched when they are replanted or set.

ALl wilde trees or stocks, which ye thinke for to graffe on, yee must first cut off all their branches before ye set them againe: also it shall be good, alwaies to take heed in replanting your trees, that ye doe set them againe in as good or better earth then they were in before, and so every Tree according as his nature doth require.

What trees love the faire Sunne, what trees the cold aire.

Commonly the most part of trees doe love the Sunne at Noone, and yet the South wind (or *vent d'aval*) is very contrary against their nature, and specially the Almond tree, the Apricot, the Mulberie tree, the Figge tree, and the Pomgranade tree. Certaine other trees there be which love cold aire, as these: The Chestnut tree, the wild and rager Chery tree, the Quince tree & the Damson or Plum tree, the Walnut loveth cold aire and a stony white ground. Peare trees love not greatly plaine places, they prosper well enough in places closed with walles, or high hedges, and specially the Peare called *b.m. Christien*.

Of many sorts and manners of trees, following their nature.

The Damson or Plum tree doth love a cold fat earth, and clay withall, the (Healme) great Cherry doth love to be set or planted upon clay. The Pine tree loveth light earth, stonie and sandy. The Medlar commeth well enough in all kinde of grounds, and doth not hinder his fruit, to be in the shadow and moist places. Hasell nut trees love the place to be cold, leane, moist and sandy. Ye shall understand, that every kinde of fruitfull tree doth love

love, and is more fruitfull in one place, then another, as according unto their nature. Neverthelesse yet we ought to nourish them (all that we may) in the place where we set them in, in taking them from the place and ground they were in. And ye must also consider when one doth plant them, of the great and largest kinde of trees, that every kinde of tree may prosper and grow, and it is to be considered also, if the trees have commonly growne afore so large in the ground or not; for in good earth the trees may well prosper and grow, having a good space one from another, more then if the ground were leane and naught.

How to place or set trees at large.

IN this thing ye shall consider, ye must give a competent space from one tree to another, when as ye make the holes to set them in, not nigh, nor that one tree touch the other. For a good tree planted, or set well at large, it profiteth oftentimes more of fruit then three or foure trees, set too nigh together. The greatest and largest trees commonly are Walnuts, and Chestnuts, if ye plant them severally in rank, as they do commonly grow upon high waies, besides hedges and fields; they must be set 35. foot a sunder, one from another, or thereabouts, but if ye will plant many ranks in one place together, ye must set them the space of 45. foot one from another, or thereabouts, and so far ye must set your ranks one from another. For the Peare trees and Apple trees, and other sorts of Trees, which may be set of this largenesse one from the other, if ye doe plant onely in ranks by hedges in the fields or otherwise, it shall be sufficient of 20. foot one from another. But if ye will set two ranks upon the sides of your great Allyes in gardens, which be of ten or twelve foot broad, it shall be then best to give them more space, the one from the other in each rank, as about 25. foot; also ye must not set your Trees right one against the other, but eastermedling or between every space, as they may best grow at large, that if need be, ye may plant of other smaller trees between, but see that ye set them not too thick. If ye list to set or plant all your trees of one bignesse, as of young trees like rods, being Peare trees, or Apple trees, they must be set a good space one from another, as of twenty or thirty foot in square, as to say, from one ranke to another. For to plant or set of smaller trees, as Plum trees, Aprile trees, of the like bignesse, it shall be sufficient for them fourteen or fifteen foot space in quarters. But if ye will plant or set

two ranks, in your Allies in Gardens, ye must devise for to proportion it after the largenesse of your said Allies. For to plant or set eger or lower Chery trees, this space shall be sufficient enough the one from the other, that is, of ten or twelve foot; and therefore if you make of great or large Allies in your Garden, as of ten foot wide, or thereabouts, they shall come well to passe, and shall bee sufficient to plant your trees, of nine or ten foot space: and for the other lesser sorts of trees, as of Quince trees, Figge trees, Nut trees, and such like, which be not commonly planted, but in one ranke together.

Ordering your trees.

WHEN that ye plant or set rankes, or every kinde of trees together, ye shall set or plant the smallest towards the Sun, and the greatest in the shade, that they may not annoy or hurt the small, nor the small the great. Also whensoever ye will plant or set Peare trees, and Plum trees (in any place) the one with another, better it were to set the Plum trees next the Sunne, for the Peares will dure better in the shade. Also ye must understand, when ye set or plant any rankes of trees together, ye must have more space betwixt your rankes and trees, (then when ye set but one ranke) that they may have room sufficient on every side.

Ye shall also scarcely set or plant Peare trees, or Apple trees, or other great Trees, upon dead or Mossie barren ground unstirred, for they increase thereon to no purpose. But other lesser trees very well may grow, as Plum trees, and such like: now when all the said things above be considered, ye shall make your holes according to the space that shall be required of every tree that ye shall plant or set, and also the place meet for the same so much as ye may convenient, ye shall make your holes large enough; for ye must suppose the tree ye doe set, hath not the halfe of his roots he shall have hereafter, therefore ye must helpe him and give him of good fat earth, (or dung) all about the roots when as ye plant him. And if any of the same roots be too long, and bruised and hurt, ye shall cut them cleane off slope wise, so that the upper side of each root so cut, may belongeth in setting, and for the small roots which come forth all about thereof, ye may not cut them off as the great roots.

How ye ought to enlarge the holes for your trees when ye plant them

When as ye set the trees in the holes, ye must then enlarge the roots in placing them, and see that they take all downwards, without turning any roots the end upward; and ye must not plant or set them too deep in the earth, but as ye shall see cause. It shall be sufficient for them to be planted or set (half a foot, or thereabouts) in the earth, so that the earth be above all the roots half a foot or more, if the place be not very burning and stonie.

Of dung and good earth, for your Plants and Trees.

And when as ye would replant or set, ye must have of good fat earth or dung, wel mingled with a part of the same earth, whereas ye took your plants out of, with all the upper crests of the earth, as thick as ye can have it : the said earth which ye shal put about the roots, must not be put too nigh the roots, for doubt of the dung being laid too nigh, which wil put the said roots in a heat, but let it be wel mingled with the other earth, and wel tempered in the holes, and the smallest and slenderest Ciens that turne up among those roots, ye may plant therewith very wel.

If ye have wormes amongst the earth of your roots.

If there be wormes in the fat earth or dung, that ye put about your roots, ye must mingle it wel also with the dung of Oxen or Kine, or slekt Sepe ashes about the root, which wil make the wormes to die, for otherwise they wil greatly hurt the roots.

To dig well the earth about the tree roots.

Also ye must dig wel the earth, principally al round about the roots, and more often if they be dry, then if they be wet; ye must not plant or set trees when it raineth, nor let the earth be very moist about the roots. The Trees that be planted or set in vallies, commonly prosper wel by drought; and when it raineth, they that be on the hills are better by watering with drops then others; but if the place or ground be moist of nature, ye must plant or set your Trees the deeper thereon.

The nature of the place.

On high and drie places, ye must plant or set your trees a litle more deepe, then in the vallies; and ye must not fill the holes in high places, so full as the other, to the end that the raine may better moisten them.

Of good earth.

YE shall understand that of good earth commonly commeth good fruit; but in certain places (if that they might be suffered to grow) they would season the tree the better. Otherwise they shall not come to proof, nor yet have a good tast.

With what ye ought to bind your trees.

WHen soever your trees shall be replanted or set, ye must knock in (by the root) a stake, and bind your trees thereto for feare of the winde: and when they do spring, ye shall dresse them and binde them with bands that may not break, which bands may be of strong soft hearbs, as Bulrushes or such like; or of old linnen clouts, if the other be not strong enough; or else ye may binde them with Ozia's, or such like, but for feare of fretting or hurting your trees.

C H A P. VII.

This Chapter treateth of medicining and keeping the trees when they are planted.

The first counsell is, when your trees be but Plants (in dry weather) they must be watered.

THe young trees which be newly planted, must sometimes in Summer be watered when the time waxeth drie, at the least the first yeare after they be planted or set. But as for other greater Trees which are well taken and rooted a good time, ye must digge them all over the roots after *Al-bollontide*, and uncover them four or five foot compass about the root of the tree: and let them so lie uncovered until the latter end of winter. And if ye do then mingle about each tree of good fat earth or dung, to heat and comfort the earth withall, it shall be good.

With what dung ye ought to dung your trees.

ANd principally unto Mossie trees, dung them with Hogs dung mingled with other earth of the sam ground, and let the dung of Oxen be next about the roots; and ye shall also abate the Moss of the trees with a great kniffe of wood, or such like, so that ye hurt not the barke thereof.

When ye ought to uncover your trees in Summer

IN the time of Summer, when the earth is scanty halfe moist, it shall be good to dig at the foot of the trees, all about the roots of

such as have not been uncovered in the winter before, and to mingle it with good fat earth: and to fill it againe, and they shall doe well.

Whene ought to cut or praine your trees.

ANd if there be in your trees certain branches of superfluous wood, that ye will cut off, carry untill the time of the entering in of the sap, that is, when they begin to bud, as in *March* and *Aprill*: Then cut of as ye shall see cause, all such superfluous branches hard by the tree, that thereby the other branches may prosper the better, for then they shall sooner close the Sap upon the cut places then in the winter, which should not do so well to cut them, as certaine do teach which have not good experience. But for so much as in this time trees be entering into the Sap, as is aforesaid, Take heed therefore in cutting then off your great branches hastily that through their great waight, they do not cleave or separate the barke from the tree, in any part thereof,

How to cut your great branches and when.

ANd for the better remedie: First you shall cut the same great branches, half a foot from the tree, and after to saw the rest cleane hard by the body of the tree, then with a broad Chisel, cut all clean and smooth upon that place, then cover it with Oxedung. Ye may also cut them well in winter, so that ye leave the Trunke or branch somewhat longer, so as ye may dresse and cut them againe in *March* and *Aprill*, as is before mentioned.

How ye ought to leave the great branches cut.

Other things here are to be shewed of certain great and old trees onely, which in cutting the great branches thereof truncheon wise, do renew againe, as Walnuts, Mulbery trees, Plum trees, Cherie trees, with others, which ye must disbranch the boughs thereof, even after *Alballonide*, or as soone as their leaves be fallen off, and likewise before they begin to enter into Sap.

Of trees having great branches.

THe said great branches when ye shall disbranch them, ye shall so cut them off in such Truncheons, to lengthen the tree, that the one may be longer then the other, that when the Cions be grown good and long thereon, ye may graffe on them againe as ye shall see cause, according as every arme shall require.

Of barrenesse of trees, the time of cutting ill branches, and of uncovering the roots.

Sometimes a man hath certaine old trees, which be almost spent, as of the Pear trees, and Plum trees, and other great trees, the which bear scant of fruit: but when as ye shall see some branches well charged therewith, then ye ought to cut off all the other ill branches and boughs, to the end that those that remaine may have the more sap to nourish their fruit, and also to uncover their roots after *Alballontide*, and to cleave the greatest roots thereof (a foot from the trunk) and put into the said clefts, a thin slate of hard stone; there let it remaine, to the end that the humour of the tree may enter out thereby, and at the end of Winter, ye shall cover him againe, with as good and fat earth as ye can get, and let the stone alone.

Trees which ye must help, or pluck up by the roots.

ALL sorts of trees which spring Cions from the roots, as Plum trees, all kind of Chery trees, and small Nut trees, ye must help in plucking their Cions from the roots in Winter, as soone as conveniently ye can, after the leafe is fallen. For they do greatly plack down and weaken the said trees, in drawing to them the substance of the earth.

What doth make a good Nut.

BUT chiefly to plant these Cions, the best way is to let them grow and be nourished two or three years from the root, and then to transplant them or set them in the Winter, as is aforesaid. The Cions which be taken from the foot of the Hasell trees, make good Nuts, and be of much strength and vertue, when they are not suffered to grow too long from the root, or foot aforesaid.

Trees eaten with beasts, must be graffed againe.

WHEN certaine graffes being well in Sap, of three or four years, or thereabouts be broken, or greatly endammaged with beasts, which have broken thereof, it shall little profite to leave those graffes so, but it were better to cut them, and to graffe them higher or lower then they were before. For the graffes shall take as well upon the new as old Cion being graffed on the wild stock: But it shall not so soon close, as upon the wild stock head.

How your wild stocks ought not hastily to be removed.

IN the beginning when ye have graffed your graffes on the wild stock, do not then hastily pluck up those Cions, or wild stocks

so grafted, untill ye shall see the gresses put forth a new shoot, the which remaining still, ye may gresse thereon againe, so that your gresses in hally removing may chance to die.

When to cut off the naughty Cions from the wood.

When your gresses on the stocks shall put forth new wood, or a new shoot, as of two or three foot long, and if they put forth also of other small superfluous Cions (about the said members or branches that ye would nourish) cut off all such ill Cions hard by the head, in the same yeare they are grafted in, but not so long as the wood is in sap, till the winter after.

How sometimes to cut the principall members

Also it is good to cut some of the principall members or branches, in the first year, if they have too many, and then againe, within two or three yeares after, when they shall be well sprung up, and the gresses well closed on the head of the stock; ye may trim or dresse them againe, in taking away the superfluous branches, if any there remaine; for it is sufficient enough to nourish a young tree, to leave him one principall member on the head, so that he may be one of those, that have been grafted on the tree before, yea, and the tree shall be fairer and better in the end then if he had two or three branches, at the foot. But if the tree have been grafted with many great Cions, then ye must leave him more largely, according as ye shall see cause or need, to recover the clefts on the head of the said gresse or stock.

How to guide and govern the said trees.

When that your trees do begin to spring, ye must order and see to them well, the space of three or four yeares, or more, until they be well and strongly growne, in helping them above, in cutting the smal twigs and superfluous wood, untill they be so high without branches as a man, or more if it may be, and then see to them well, in placing the principall branches, if need be, with forks or wands prickt right and well about them at the foot, and to proine them, so that one branch do not approach too nigh the other, nor yet fret one the other, when as they do enlarge and grow, and ye must cut off certaine branches in the tree, whereas they are thickest.

A kind of sicknesse in trees.

When certaine trees are sick of the Gall, which is a kind of sicknesse that doth eat the barke, there ye must cut it,
and

and take out all the same infection with a Chesil, or such like thing. This must be done at the end of Winter; then put on that infected place of Ox dung or Hogs dung, and bind it fast thereon with clouts, and wrap it with Oziers, so let it remain a long time, till it shall recover againe.

Tree which have wormes in the barke.

OF trees which have wormes within their barks, whereas ye shall see a swelling or rising therein, there ye must cleave the said barke unto the wood, to the end the humour may also distill out thereat, and with a little hook ye must pluck or draw out the said worms, with all the rotten wood that ye can see; then shall ye put upon the said place, a plaister made of Ox dung, or Hogs dung mingled and beaten with Sage, and a little of unslackt Lime, then let it be well blended together, and spread it on a cloth, and bind it fast and close thereon so long as it will hold. The Lees of Wine shed or poured upon the roots of trees (the which be somewhat sick through the coldnesse of the earth) doth them much good.

Snailes, Anties and Wormes doth mar Trees.

ALso ye must take heed of all manner of young trees, and specially of those graffes, the which many Worms and Flies do endamage and hurt in the time of Sommer; those are the Snailes, the Pismires, or Ants: the field Snaiile which hurteth also all other sorts of trees that be great, principally in the time that the Cuckow doth sing, and betwixt *April* and *Midsomer*, while they be tender. There be little beasts called Sowes, which have many legs, and some of them be gray, some black, and some have a long sharp snout, which be very noisome, and great hurters of young graffes, and other young trees also, for they cut off in eating the tender tops (of the young Cions) as long as ones finger.

How ye ought to take the said wormes.

FOr to take them well, ye must take heed and watch in the heat of the day (your young trees) and where you shall see any, put your hand softly underneath, without shaking the tree, for they will sodainly fall when one thinkes to take them; therefore so soon as ye can (that they flie not away nor fall) take him (quickly on the Cion) with your other hand.

To keep Antes from young trees.

FOr to keep the young trees from Snailles and Antes, it shall be good to take Ashes and to mingle unslackt Lime, beaten in powder therewith, then lay it all about the root of the tree, and when it raineth, they shall be beaten down into the Ashes and die: but ye must renew your Ashes after every raine from time to time: also to keep them moist, ye must put certaine small vessels full of water at the foot of your said trees, and also the Lees of Wine, to be spread on the ground there all about. For the best destroying of the small snailles on trees, ye must take good heed in the spring time before the trees be leaved, then if ye shall see as it were small warts, knobs or branches on the trees, the same will be snailles. Provide to take them away faire and softly, before they be full clofed, and take heed that ye hurt not the wood or barke of the said tree as little as ye can; then burn those branches on the earth, or all to tread them under your feet, and then if any do remain or renew, looke in the heat of the day, and if ye can see any, which will commonly be on the clefts or forkes of the branches, and also upon the branches lying like tofts or tops together, then wrap your hands all over with old clothes (and bind leaves beneath them, and above them) and with your two hands rub them down therein, and straight way fire it, if ye do not quickly with diligence, they will fall, and if they fall on the earth, ye cannot lightly kill them, but they will renew againe: these kind of worms are noisome. Flies which be very strange, therefore take heed that they do not cast a certaine rednesse on your face and body; for whereas there be many of them, they be dangerous: it is strange to tell of these kind of Wormes, if ye come under or among the trees where-as be many, they will cast your face and hands (your covered body, as your neck, breast and arme) full of small spots, some red, some black, some blewish, which will so tingle and trouble you like Nettles, sometimes for a day, or a day and a night after; they be most on Plum trees, and Apple trees, nigh unto moist places, and ill aires: yet nevertheless by the grace of God there is no danger (that I understand) to be taken by them. Ye shall understand, that if it be in the evening, or in the morning, when it raineth, they will remaine about the grafting place of the tree, therefore it will be hard to find them, because they are so small. Moreover, if such branches do remain in the upper part of the boughes or tree,

ye shall put dry straw under the boughes, then with a wisp on a poles end, set fire on all and burn them.

A note in Spring time of Fumigations.

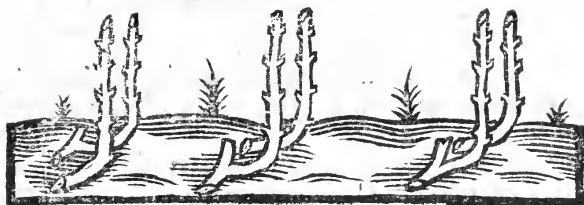
Here is to be understood and noted, that in the Spring time **H**onely, when trees do begin to put forth leaves and blossoms, ye must then alwaies take heed unto them, for to defend them from the frost (if there come any) with Fumigations or smokes, made on the wind side of your Orchards (or under your trees) with straw, hey, drie chaffe, drie Ox dung, or saw-dust dried in an Oven, or Tanners Oze dried likewise, or *Galbanum*, or old shooes, thatch of houses, or haire, and such like, one of these to be mingled with the other: all these be good against the Frost in the spring time, and specially good against the East wind, which breedeth (as some say) the Caterpillar worme.

To defend trees from the Caterpillar.

Some do defend their trees from the Caterpillar, when the blossoming time is dried (if there be no frost) by casting of water, or salt water, every second or third day upon their trees (with instruments for the same, as with Squires of Wood or Brasse, or such like) for in keeping of them moist, the Caterpillar cannot breed thereon: this experience have I known proved of late to be good. For to conclude, he that will set or plant trees, must not passe for any paines, but have a pleasure and delight therein, in remembering the great profit that commeth thereby: Against scarcenesse of Corne, fruit is a good stay for the poor, and often it hath been seen, one Acre of Orchard ground, worth four Acres of Wheat ground.

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Here followeth a little Treatise, how one may
Grafte & Plant artificially, and Dextrously, and
to make many things very strange in Gardens.

FOr to Grafte a subtil way, take one oylet, or yee of a
Grafte, slit it round above and beneath, and then
behind downe right, wreath him off, and set him
upon another Cion, as great as he is, then dresse him,
as is aforesaid, and he shall grow and bear.

To grafte one Vine upon another.

FOR to grafte one Vine upon another, ye shall cleave him as ye
do other trees, and then put the Vine grafte in the cleft, then
stop him close and well with wax, and so binde him, and he shall
grow.

If a Tree be long without fruit.

YE shal uncover his root, and make a hole with a Piercer, or smal
Auger, in the greatest root he hath, without piercing through
the root, then put in a pin (in the said hole) of dry wood (as Oake or
Ash) and so let it remaine in the said hole, and stop it close againe
with wax, and then cast earth and cover him againe, and he shall
bear the same year.

For to have Peaches two moneths before others.

TAKE your Cions of a Peach tree that doth soon blossome in the
Spring time, and grafte them upon a franke Mulbery tree, and
he shall bring forth Peaches two moneths before others.

To have Damsons or other Plums untill Alballontide.

FOR to have Damsons all the Sommer long until Alballontide,
and of many other kind of sorts likewise, ye shall grafte
them

them upon the Goosebery tree, upon the franke Mulbery tree, and upon the Cherry tree, and they shall endure upon the trees til *Alhallontide*.

To make Medlars, Cherries, and Peaches in eating to taste like spice.

FOr to make Medlars, Cherries and Peaches, to taste in the eating pleasant like spice, the which ye may also keep until new come again: ye shall graffe them upon the franke Mulbery tree, as I have afore declared, and in the graffing ye shall wet them in Honie, and put a little of the powder of some good spices, as the poudor of Cloves, of Cinamon, or Ginger.

To make a Muscadell taste.

FOr to make a Muscadell taste, take a Gouge or Chesil of Iron, (and cut your sap round about) then put in your Gouge or Chesil, under your sap on your Cion, and raise three eyes or oylets round about, and so take off faire and softly your bark round about, and when it is so taken off, anoint it all over within the bark, with poudor of Cloves or Nutmegs, then set it on againe, and stop it close with wax round about, that no water may enter in, and within thrice bearing, they shall bring a faire Muscadell Reison, which ye may after both graffe and plant, and they shall be all after a Muscadell fruit: some slits the bark downe, and so put in of Spice.

To set Apples and Pears to come without blossoming.

FOr to make Apples and Pears, and other sorts of fruit to come without blossoming, that is, ye shall graffe them (as ye do other kind of fruit) upon the Fig tree.

To have Apples and Chestnuts rath, and also long on the trees.

FOr to have Apples called (in French) *de blanc Durel*, or *de Yroall*, and of Chestnuts very rath, and long (as unto *Alhallontide*) on the trees; and to make such fruit also to endure the space of two years, ye shall graffe them on a laterward fruit, as *Pome Richard*, or upon a Pear tree, or Apple tree of *Dangoisse*.

To have good Cherries on the trees at Alhallontide.

TO have Cherries on many trees good for to eat unto *Alhallontide*, ye shall graffe them upon a franke Mulbery tree, and likewise to graffe them upon a Willow, or Sallow tree, and they shall endure unto *Alhallontide* on the trees.

To have rath Medlars two months before others.

FOR to have Medlars two months sooner then others: and the one shall be better far then the other, ye shall graffe them upon a Goosebery tree, and also a franke Mulbery tree, and before ye do graffe them, ye shall wet them in hony, and then graffe them.

For to have rath or timely Pears.

FOR to have a rath Pear, the which is in France, as the Pear *Cai-lonet*, and the Pear *Hastimean*. For to have them rath or soon, ye shall graffe them on the Pine tree; And for to have them late, ye shall graffe them on the Pear called in France *Dangoisse*, or on other like hard Pears.

To have Misples or Medlars without stones.

FOR to have Medlars without stones, the which shall tast sweet as hony, ye shall graffe them as the other, upon an Eglantine, or sweet Briar tree, and ye shall wet the graffe (before ye graffe them) in hony.

To have Pears betimes.

FOR to have the Pear *Anguisse*, or *Pearmain*, or *Satigle*, (which be of certaine places so called) a month or two before others, the which shall endure and be good untill the new come againe, ye shall graffe them upon a Quince tree, and likewise upon the frank Mulbery tree.

To have ripe and franke Mulberies very soon or late.

FOR to have frank or ripe Mulberies very soon, ye shall graffe them upon a rath Pear tree, and upon the Goosebery tree, and to have very late, and to endure unto Alhallontide, ye shall graffe them upon the Medlar tree.

How to keep Pears a year.

YE shall take of fine Salt very dry, and put thereof with your Pears into a barrel, in such fort, that one Pear doth not touch another, so fill the barrel if ye list, then stop it, and let it be set in some dry place, that the Salt do not wax moist, thus ye may keep them long and good.

To have your fruit tast halfe Apples, halfe Pears.

IF you will have your fruit tast half a Pear, and halfe an Apple, ye shall in the spring take graffes, the one a Pear, and the other an Apple, ye shall cleave or pare them in the grafting joynt or place, and joyn half the Pear Cion, and so set them into your stock,

stock, and see well that no raine do enter therein upon your joynts, and that fruit shall bring thee halfe a Peare, and the other halfe an Apple in tast.

Times of graffing.

IT is good also to graffe one or two dayes before the change, and noe more, for look so many more daies, as ye shall graffe before them, so many more yeares it will be ere your trees shall bring fruit: also it is good graffing all the increase of the Moon, but the sooner after the change the better.

To graffe the Quince Apple.

IF ye graffe the Quince Apple upon an Apple stock, ye shall not long continue without the Canker, but to graffe him on a knotty young Crabstock, he shall endure long without the Canker.

To destroy Pismiers, or Antes about a tree.

FOR to destroy Emets or Antes, which be about a tree, if ye remove and stir the earth all about the root of the said tree, then put thereon all about, a great quantity of the soot of a Chimney, and the Antes or Pismiers will either away, or else shortly die.

Another for the same.

YE shall take of the saw-dust of oke wood onely, and straw that all about the tree root, and the next raine that doth come, all the Pismiers or Ants shall die there. For Earewigges, shoes stopt with hay, and hanged on the tree one night, they come all in.

To have Nuts, Plummes, and Almonds.

Nuts greater then other.

FOR to have great Nuts, Plums, and Almonds greater then others; ye shall take foure Nuts, or of any of this fruit above-said, and put them into a pot of earth, joyning the one with the other as neere as ye can, then make a hole in the bottome of the pot, through the which holes these Nuts shall be constrained to issue, and being so constrained, shall come to perfection and grow together as in one tree, the which in time shall bring fruite greater and larger then others.

To make an Oake or other tree green in Winter as in Summer.

ALso to make an Oake or other tree to be green as well in Winter as in Summer, ye shall take the graffe of an Oake tree, or other tree, and graffe it upon the Holly tree: the best and most

rest way is, to graffe one through the other. Also who so will edifie or make an Orchard, he ought (if he can) to make it in a moitt place, whereas the South winds, or Sea winds may have recourse unto them.

The time of planting without roots and with roots.

ALso the best time to plant or set without roots, as with branches or steerings of all sorts of trees which hath a great pith, as Figge trees, Hasell trees, Mulbery trees, and Vines, with other like trees, all which ought to be set from the midst of *September* (if the leaves be off) unto *Alballontide*; and all other trees with roots, ought to be set in Advent untill *Christmas*, or anon after, if the time be not very cold and dangerous.

To keepe fruit from the Frost.

ALso to keepe fruit from the frost, and in good colour, until the new come againe, ye ought so for to gather them when the time is faire and dry, and the Moon in her decreasing; and that they lye also in very dry places by night, covered thin with wheat-straw, and if the time of Winter be cold and very hard, then put on Hay above them in your straw, and take it away when as a faire time commeth: and thus ye shall keepe your fruit faire and good.

The daies to plant and Graffe.

ALso (as some say) from the first day of the new Moone, unto the 13. day thereof, is good for to plant, or graffe, or sow and for great need, some do take in unto the 17. or 18. day thereof, and not after, neither graffe nor sow, but as is aforementioned, a day or two daies before the change, the best signes are, *Taurus*, *Virgo*, and *Capricorne*.

To have green Roses all the yeare.

FOR to have green Roses, ye shall (as some say) take your Rose buds in the spring time, and then graffe them upon the Holly stock, and they shall be green all the yeare.

To keepe Reisons or Grapes good a yeare.

FOR to keepe Reisons or Grapes good all a whole yeare, ye shall take of fine dry sand, and then lay your Reisons or Grapes therein, and it shall keepe them good a whole yeare. Some keepe them in a close Glasse from the ayre.

To make fruit Laxative from the tree.

FOR to make any fruit laxative from the tree, what fruit soever it be; make a hole in the stock, or in the master root of the tree, (with

(with a great Pearcer sloopwife) not through, but unto the pith, or somewhat further, then fill the said hole with the juyce of Elder, of *Centorie*, or of *Seny*, or *Turbith*, or such like laxatives, then fill the said hole therewith, of which of them ye will, or else ye may take three of them together, & fill the said hole therewith and then stop the said hole close, with soft wax, then clay it thereon, and put Moss very well over all, so that nothing may issue or fall out, and all the fruit of the said Tree shall be from thence forth laxative.

Of the Soyle

IF your ground be barren (for some are forced to make an Orchard of barren ground) make a pit three quarters deep, 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 then 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 up all the earth on the inner side, and fill the same with a 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.

Your ground must be plaine, that it may receive and keepe moysture, not onely the Raine falling thereon, but also water cast upon it, or descending from higher ground by Sluces, Conduits, &c. For I account moysture in Summer very needfull in the soyle of Trees, and drought in Winter. Provided that the ground neither be boggy, nor the inundation be past 24. hours at any time, and but twice in the whole Summer, end so oft in Winter. Therefore if your plot be in a Banke, or have a descent, make trenches by degrees, Allyes, Walkes, and such like, so as the water may be stayed from passage. And if too much water be any hinderance to your walkes (for drie walkes do well become an Orchard, & an Orchard them:) raise your walkes with earth first, & then with stones, as big as Walnuts: and lastly with gravel. In Summer you need not doubt too much water from heaven, either to hurt the health of your body, or of your trees. And if overflowing molest you after one day, avoid it then by deep trenching.

Grasse also is thought needfull for moysture, so you let it not touch the roots of your trees: for it will breed mosse, and the boall of your tree neer the earth would have the comfort of the sun and ayre.



*Here followeth certaine waies of Planting
and Graffing, with other necessaries herein
meete to be knowne.*

To graffe one Vine on another

Mou that will graffe one Vine upon another, ye shall in *January*, cleave the head of the Vine, as ye doe other stocks, and then put in your Vine graffe or Cion, but first ye must pare him thin, ere ye set him in the head, then Clay and Mosse him as the other.

Chosen dayes to Graffe in, and to choose your Cions

VVhensoever that ye will Graffe, the best chosen time is on the last day before the change, and also in the change, and on the second day after the change, if ye graffe (as some say) on the third, fourth, and fifth day after the change, it will be so many yeares, ere those Trees bring forth fruit. Which thing ye may beleeve if ye will, but I wil not. For some do hold opinion, that it is good graffing from the change, unto the eighteen day thereof, which I thinke to bee good in all the increasing of the Moon, but the sooner the better.

To gather your Cions.

Such Cions or Graffes, which ye doe get on the other Trees, the young Trees of three or foure yeares, or five or six yeares are best to have graffes. Take them off no under boughes, but in the top
upon

upon the East side, if ye can, and of the fairest and greatest. Ye shall cut them two inches long of the old Wood, beneath the joynt. And whensoever ye will graffe, cut or pare your graffes taperwise from the joynt, two inches or more of length, which ye shall set into the stock: and before ye set it in, ye shall open your stocke with a wedge of Iron, or hard Wood, faire and softly: then if the sides of your clefts be ragged, ye shall pare them with the point of a sharp knife on both sides, within and above, then set in your graffes close on the outsides, and also above: but let your stocke be as little while open as ye can, and when your graffes be wel set in, pluck forth your wedge: and if your stocke do pinch your graffes much, then ye must put in a wedge of the same Wood to helpe your graffes: Then ye shall lay a thicke barke or pill over the cleft, from the one graft to the other, to keepe out the clay and raine, and so clay them two fingers thicke round about the Cliffes, and then lay on mosse, but Wooll is better next to your clay, or else to temper your clay with Wooll or Haire, for it shall make it bide closer, and also stronger on the stock head: some take Wooll next the clay, and wrappeth it all over with linnen clouts, for the Wooll being once moist, will keepe the clay so a long time. And other some take Wollen clouts, that have beene laid in the juyce of Worm-wood, or such like bitter thing, to keepe creeping wormes from comming under to the graffes. If ye graffe in winter, put your clay uppermost, for summer your mosse. For in winter the mosse is warme, and your clay will not cleave. In Summer your clay is cold, and your mosse keeps him from cleaving or chapping. To binde them, take of Willow pills, of cloven Briers, of Oziers, or such like. To gather your Graffes on the East part of the tree is counted best: if ye gather them below on the under bouhgs, they will grow flaggie, and spreading abroad: If ye take them in the top of the tree, they will grow upright. Yet some doe gather their Cions or Graffes on the sides of the trees, and so graffe them againe on the like sides of the stocks, the whic his of some men not counted so good for fruit. It is not good to graffe a great stock, for they will be long, or they cover the head thereof.

Of Wormes in trees or fruit.

IF ye have any trees eaten with Wormes, or doe bring Wormie fruit, ye shall use to wash all his body and great branches, with two parts of Cow pisse, and one part of Vineger, or else if

ye can get no Vinegar, with Cow pisse alone, tempered with common Ashes : then wash your trees therewith before the spring, and in the spring, or in Summer. Aniseseeds sowne about the tree roots, drive away wormes, and the fruit shall be the sweeter.

The setting of stones, and ordering thereof.

AS for Almond trees, Peach trees, Cherie trees, Plum trees; or others, ye shall thus plant or set them. Lay first the stones in water, three dayes and fours nights, untill they sinke therein : then take them betwixt your finger and your thumb, with the small end upward, and so set them two fingers deep in good earth. And when ye have so done, ye shall rake them all over, and so cover them : and when they begin to grow or spring, keepe them from weeds, and they shall prosper the better, especially in the first yeare. And within two or three yeares after, ye may set or remove them where ye list, then if ye doe remove them againe after that, ye must prune off all his twigs, as ye shall see cause, nigh the stock : thus ye may doe of all kinde of trees, but especially those which have the great sap, as the Mulbery, or Fig-trees, or such like.

To gather Gumme of any tree.

IF ye list to have the Gumme of an Almond tree, yee shall sticke a great naile into the tree, a good way, and so let him rest, and the Gumme of the tree shall issue thereat : thus doe men gather Gum of all sorts of trees : yea, the common Gum that men do use and occupie.

To set a whole Apple.

ALso some say, that if ye set a whole Apple four fingers in the earth, all the Pepins or Curnels in the same Apple will grow up together in one whole stock or Cion, and all those Apples shall be much fairer and greater than others; but ye must take heed, how ye doe set those Apples, which do come in leap yeares, for in a leap yeare (as some do say) the Curnels or Pepins are turned contrary, for if ye should so set, as commonly a man doth, ye shall set them contrary.

Of setting the Almond

Almonds doe come forth and grow commonly well, if they be set without the shell or huske, in good earth, or in rotten hogs dung : If ye lay Almonds one day in Vineger, then shall they (as some say, be very good to plant : or lay them in Milke and water, untill they do sink, they shall be the better to set, or any other Nut.

Of Pepins watered.

THe Pepins and Curnels of those Trees, which have a thicke or rough barke, if ye lay them three daies in water, or else untill they sinke therein, they shall be the better, then set them, or sow them, as is aforesaid mentioned, and then remove them, when they be well rooted, of three or four yeares growth, and they shall have a thin barke.

To Plant or set Vines.

IF ye plant or set Vines, in the first or second yeare, they will bring no fruit, but in the third yeare they will beare, if they be well kept: ye shall cut them in *January*, and set them soone after they be cut from the Vine, and ye shall set two together, the one with the old wood, and the other without, and so let them grow, in plucking away all weeds from about them, and when ye shall remove them in the second and third yeare, being well rooted, ye shall set them well a foot deepe in good fat earth, with good dung, as of one foot deep, or thereabouts, and keepe them cleane from weeds, for then they will prosper the better, & in summer when the grape is knit, then ye shall break off his top or branch, at one or two joynts after the grape, and so the grape shall be the greater, and in the winter when ye cut them, ye shall not leave past two or three leaders on each branch, on some branch but one leader, which must be cut betwixt two joynts, and ye shall leave the young Vine to be the leader. Also ye shall leave thereof three or foure joynts at all times, if a young Cion doe come forth of the old branch, or side thereof, if ye do cut him, ye shall cut him hard by the old branch, and if ye will have him to bring the grape next yeare, ye shall leave two or three joynts thereof, for the young Cion alwaies bringeth the grape: ye may at all times, so that the grape be once taken and knit, ever as the superfluous Cions doe grow, ye may breake them off at a joynt, or hard by the old branch, and the grapes will be the greater: thus ye may order yout Vine all the summer long without any hurt.

To set or plant the Cherie.

Chery trees, and all the trees of stone fruit, would be planted or set of Cions, in cold grounds and places of good earth, and likewise in high or hilly places, dry and well in the shade: if ye do remove, ye ought to remove them in *November* and *January*, if ye shall see your Chery tree wax rotten, then shall ye make a hole in the midst of the body two foot above the ground, with a bigge Pear-

cer, that the humour may pass forth thereby, then afore the spring shut him up againe with a pions, of the same Tree : thus ye may doe unto all other sorts of trees when they begin to rot, and is also good for them which beare scant of fruit or none.

To keepe Cherries good a yeare.

Yee shall cut off the stalks, and then lay them in a well leaded pot, and fill the said pot therewith, then put unto them of good thin honey, and fill the said pot therewith, then stop it with Clay that no aire enter in, then set them in some faire Sellar, and put on sand under and all about it, and cover the pot well withall, so let it stand or remaine : thus ye may keepe them a yeare, as fresh as though they came from the tree, and after this sort ye may keepe peares or other fruit.

Against Pismians.

If ye have Cherry trees laden or troubled with Pismians or Ants, ye shall rub the body of the tree, and all about the root with the juyce of Purslaine, mingled halfe with Vineger. Some doe use to annoint the Tree beneath, and all about the body, with Tarre and Birdlime; with Wooll, oyle boyled together, and annoint the tree beneath therewith, and lay Chalke stones all about the tree root, some say it is good therefore.

The setting of Chestnuts.

THe Chestnut-tree, men doe use to plant like unto the Fig-tree. They may be both planted and grafted well, they wax well in fresh and fat earth, for in sand they like not. If ye will set the curls, ye shall laie them in water untill they doe sinke, and those that doe sinke to the bottome of the water be best to set, which ye shall set in the Month of *November* and *December*, foure fingers deepe, a foot one from another, for when they be in these two Months set or planted, they shall endure long, and beare also good fruit; yet some there be that plant or set them first in dung like beanes, which will be sweeter then the other sort, but those which be set in the two months afore said, shall first beare their fruit, men may prove which is best, experience doth teach. This is another way to prove & know, which Chestnuts be best to plant or set; that is, ye shal take a quantitie of nuts, then lay them in sand the space of thirty dayes, then take and wash them in water faire and clean, and throw them into water again, & those which do sinke so the bottom, are good to plant or set, and the other that swim are naught :

neught: thus may ye do with all other Curnels or Nuts.

To have all stone fruit taste as ye shall thinke good.

IF ye will have all stone fruit taste as ye shall fancy or thinke good, ye shall first lay your stones to soke in much liquor or moisture, as ye will have the fruit taste of, and then set them as for the Date tree (as some say) he bringeth no fruit except he be a hundred year old, and the Date stone must soke one month in the water before he be set, then shall ye set him with the small end upward in good fat earth, in hot Sandie ground four fingers deep, and when the boughs do begin to spring, then shall ye every night sprinkle them with raine water, (or other if ye have none) so long till they be come forth and grown.

Of graffing the Medlar and Mistle tree.

FOR to graffe the Medlar or Mistle: men do use to graffe them on the white Hathorne tree, they will prove well, but yet smal and sower fruit; to graffe one Medlar upon another is the better, some men do graffe first the Wilding Cion upon the Medlar stock, and so when he was well taken and grown, then they graffe thereon the Medlar againe, the which doth make them more sweet, very great and faire.

Of the Fig tree.

THE Fig tree in some Countries, beareth his fruit four times a year, the black Figs are the best, being dried in the Sun, and then laid in a vessel in beds one by another, and then sprinkled or strawed all over, every lay with fine Meale, then stop it up, and so it is sent out of the Land. If the Fig tree will not bear, ye shall dig him all about, and under the roots in February, and take out then all his earth, and put unto him the dung of a privie, for that he liketh best: ye may mingle with it of other fat earth, as Pigeons dung mingled with oyle and pepper stamp, which shall forward him much to anoint his roots therewith: ye shall not plant the Fig tree, in cold times, he loveth hot, stonie, or gravelly ground, and to be planted in Autumne is best.

Of the Mulbery tree.

IF ye will plant the Mulbery tree, the Fig tree or others which bring no seed, ye shall cut a twig or branch (from the tree root) of a years growth, with the old wood or barke, about a cubit long, which ye shall plant or set all in the earth, save a shafinet long to

it, and so let it grow, in watering it as ye shall see need. This must be done before the leaves begin to spring, but take heed that ye cut not the end or top above, for then it shall wither and drie.

Of trees that bear bitter fruit.

OF all such trees as bear bitter fruit, to make them bring sweet-er, ye shall uncover all the roots in *January*, and take out all that earth, then put unto them of Hogs dung great plenty, and then after put unto them of other good earth, and so cover them therewithall well again, and their fruit shall have a sweeter tast. Thus men may do with other trees which bring bitter fruit.

To help barren trees.

HERE is another way to help barren trees, that they may bring fruit: if ye see your tree not bear in three or four years good plenty, ye shall bore an hole with an Auger or Pearcer, in the greatest place of the body (within a yard of the ground) but not through, but unto or past the heart, ye shall bore him aslope: then take hony and water mingled together a night before, then put the said hony and water into the hole, and fill it therewith, then stop it close with a pin short made of the same tree, not striken in too far for piercing the liquor.

Another way.

IN the beginning of Winter, ye shall dig those trees round about the roots, and let them so rest a day and a night, and then put unto them of good earth, mingled well with good store of water Oates, or with water Barly or Wheat, laid next unto the roots, then fill it with other good earth, and he shall bear fruit, even as the boring of a hole in the master root, and strike in a pin, and so fill him againe, shall help him to bear, as afore declared.

To keep your fruit.

ALl fruit may be the better kept, if ye lay them in dry places, in dry Straw or Hay; but Hay ripeth too soon, or in a Barly mow, not touching one the other, or in Chaffe, or in vessels of *Juniper*, or *Cipres* wood, ye may so keep them well in dry Salt or Hony, and upon boards, whereas the fire is nigh all the winter, also hanging nigh fire in the winter, in Nets of yarne.

The Mulberie tree.

THE Mulberie tree, is planted or set by the Fig tree, his fruit is first sower, and then sweet, he liketh neither dew nor raine, for they hurt him, he is well pleased with foule earth and dung: His
branches

branches wis wax dry within every six years, then must ye cut them off, as for other trees they ought to be pruned every year, as ye shall see cause, and they will be the better, and to plant them from mid *February*, to mid *March* is bett.

Of Mofse of trees.

YE must not let your trees be too longuncleanfed, ye must rub off the mofse with agrate of wood, or a rough hair, or such like, in when they be moist or wet, for then it will off the sooner, for Mofse doth take away the strength and substance of the fruit, and makes the trees barren at length: when you see your trees begin to wax Mofsie, ye must in the Winter uncover their roots, and put under them good earth, this shall help them, and keep them long without Mofse: for the earth not stirred about the root, is one cause of Mofsinesse, and also the barrenesse of the ground whereon he standeth, and your Mofse doth succour in Winter, Flies and other vermin, and so doth therein hide them in Summer, which is occasion of eating the blossoms, and tender Cions thereof.

To keep Nuts.

FOR to keep Nuts long, ye shall drie them, and cover them in drie sand, and put them in a drie Bladder, or in a Fat made of Walnut tree, and put of drie *Vie berries* therein, and they shall be much sweete. To keep Nuts green a year, and also fresh, ye shall put them into a pot with Hony, and they shall continue fresh a year, and the said Honey will be gentle and good for many Medicines. To keep Walnuts fresh and green, in the time of straining of Verjuyce, ye shall take of that Pommis, and put thereof in the bottome of a barrel, then lay your Walnuts all over, then Pommis over them, and so Walnuts again, and then of the Pommis, as you shall see cause to fill your vessel: Then stop him close as ye do a barrel, and set him in your Seller, or other place, and it shall keep your Nuts fresh and green a year. Some use to fill an earthen pot with small Nuts, and then put to them dry sand, and cover them with a lid of earth, or stone, and then they clay it, setting the mouth of the pot downward, two foot within the earth, in their garden, or other place, and so they will keep very moist and sweet untill new come.

To cut the Peach tree.

THE Peach tree is of this nature, if he be cut (as some say) green, it will wither and dry. Therefore if ye cut any small branch,

cut

cut it hard by the body: the withered twigs even as they wither, must be cut off hard by the great branch, or body thereof, for then they do prosper the better. If a Peach tree do not like, ye shall put to his roots, the lees of Wine mingled with water, and also wash his roots therewith, and likewise the branches, then cover him again with good earth mingled with his own leaves, for those he liketh best. Ye may graffe Peach upon Peach, upon Hasil, or Ash, or upon Cherie tree, or ye may graffe the Almond upon the Peach tree. And to have great Peaches, ye must take Cowes milke, and put good earth thereto, then all to strike the body of the tree therewith, both upward and downward, or else open the root all bare, three daies and three nights, then take Goats milke, and wash all the roots therewith, and then cover them againe: this must be done when they begin to blossome, and so shall he bring great Peaches.

To colour Peach stones.

TO colour Peach stones that all the fruit thereof shall have the like colour hereafter, that is, ye shall lay or set Peach stones in the earth seven daies or more, untill ye shall see the stones begin to open, then take the stones and the curnels softly forth thereof, and what colour ye will, colour the curnell therewith, and put them into the shell againe, then bind it fast together, and set it in the earth, with the small end upward, and so let him grow, and all the Peaches which shall come of the same fruit (grafted or ungrafted) will be of the same colour. The Peach tree ought to be planted in Autumne, before the cold do come, for he cannot abide the cold.

If Peach trees be troubled with wormes.

IF any Peach tree be troubled with wormes, ye shall take two parts of Cow pissie, with one part of Vineger, then shall ye sprinkle the tree all over therewith, and wash his roots and branches also, and it will kill the wormes: This may ye do to all other trees, which be troubled with wormes.

To have the Peach without stones.

YE shall take a Peach tree newly planted, then set a Willow hard by, which ye shall bore a hole through, then put the Peach tree through the said hole, and so close him on both sides thereof, Sap to Sap, and let him so grow one year, then the next year ye shall cut off the Peach stock, and let the Willow feed him, and

and cut off the upper part of the willow also three fingers high : and the next winter saw him off nigh the peach, so that the Willow shall feed but the Peach onely : and this way ye may have peaches without stones.

Another way for the same.

Yee shall take the graffes of Peaches, and graffe them upon the Willow stocke, and so shall your Peaches be likewise without stones.

If trees doe not prosper.

IF that ye see that your trees doe not wax nor prosper, take and open the roots in the beginning of *January*, or afore, and in the biggest root thereof, make a hole with an Auger to the pith or more, then strike therein a pin, of Oake, and so stop it again close, and let it be well waxt all about the pinne, then cover him againe with good earth, and he shall doe well : some doe use to cleave the root.

How to graffe Apples, to last on the tree till Allallowside.

How ye may have many sorts of Apples upon your trees until *Allallowside*, that is, ye shall graffe your Apples upon the Mulberie tree, and upon the Cherie tree.

To make Cherries and Peaches smell, and taste like spice.

How to make Cherries and Peaches, shall be pleasant, and shall smell and taste like spice, and that ye may keep them well, till the new doe come againe, ye shall graffe them on the Mulberie tree, as is aforesaid. But first yee shall soke them in Hony and Water, wherein ye shall put off the powder of Cloves, Ginger, and Cinamon.

To graffe an Apple which shall be halfe sweet, and halfe sower.

TO graffe that your Apples shall be the one halfe sweet, and the other halfe sower : ye shall take two Cions, the one sweet and the other sower, some doe put the one Cion through the other, and so graffes them betweene the barke and the tree : and some againe doe pare both the Cions finely, and so sets them joyning into the stock, inclosing sap to sap, on both the outsidies of the graffes, unto the outsidies of the stocke, and so sets them into the head as the other, and they shall bring fruit, the one halfe sweet, and the other halfe sower.

To graffe a Rose on the Holly.

FOR to graffe the Holly, that his leaves shall keepe all the yeare green : Some do take and leave the Holly, and so graffes in a

white or red Rose bud, and then put Clay and Mosse to him, and let him grow, and some doe put the Rose bud into a slit of the barke, and so putteth Clay and Mosse, and binds him featly therein, and lets him grow, and he shall carry his leafe all the yeare.

Of keeping of Plummes.

OF Plummes there be many sorts, as Damsons, which be all blacke, and counted the best: All manner of other Plumms a man may keepe well a yeare, if they be gathered ripe, and then dried, and put into vessels of Glasse: If ye cannot dry them well in the Sun, ye shall dry them on hurdels of Oziars made like Lettice windows, in a hot oven after Bread is drawne forth, and so reserve them. If a Plum-tree like not, open his root, and powre in all about the dregs of Wine mixt with water, and so cover him well againe, or powre on them stale Urine, or old pisse of old men, mixt with two parts of Water, and so cover him as before.

Of altering of Peares, or stony fruit.

IF a Peare do tast hard or gravelly about the core, like small stones, ye shall uncover his roots (in the Winter, or afore the spring) and take out all the earth thereof, and picke out all the stoness as clean from the earth, as ye can about his root, then sift that earth, or else take of other good fat earth without stoness, and fill all his roots again therewith, & he shall bring a soft and gentle Peare to eat, but ye must see well to the watering of him often.

The making of Cider and Perrie.

OF Apples and Peares, men doe make Cider and Perry, and because the use thereof in most places is knowne, I will here let passe to speake any further thereof; but this (in the pressing your Cider,) I will counsell you to keepe cleane your vessels, and the places whereas your fruit doth lye, and specially after it is bruised or broken, for then they draw filthy aie unto them, and if it be nigh, the Cider shall be infected therewith, and also beare the tast after the infection thereof: therefore as soone as you can, turne it into cleane and sweet vessels, as into vessels of white Wine, or of Sacke or Claret, and such like, for these shall keepe your Cider the better and the stronger a long time after: Ye may hang a small bagge of linnen by a thred, downe in'to the lower part of your Vessell, with powder of Cloves, Mace, Cinamon, and Ginger, and such like, which will make your Cider to have a pleatant taste.

To help frozen Apples.

OF Apples that be frozen in the cold and extreame Winter. The remedie to have the Ice out of them, is this: Ye shall lay them first in cold water a while, and then lay them before the fire, or other heat, and they shall come to themselves againe.

To make Apples fall from the tree.

IF ye put of fiery coles under an Apple tree, and then cast of the powder of Brimstone therein, and the fume thereof ascend up, and touch an Apple that is wee, that Apple shall fall incontinent.

To water trees in Sommer, if they wax drie about the root.

WHereas Apple trees be set in drie ground, and not deep in the ground, in Sommer if they want moisture, ye shall take of Wheat straw, or other, and every evening (or as ye shall see cause) cast thereon water all about, and it will keep the trees moist from time to time.

To cherish Apple trees.

IF ye use to throw (in winter) all about your Apple trees on the roots thereof, the Urine of old men, or stale pisse long kept, they shall bring fruit much better, which is good for the Vine also, or if ye do sprinkle or anoint your Apple tree roots with the gall of a Bull, they shall bear the better.

To make an Apple grow in a glasse.

TAke a glasse, what fashion ye list, and put your Apple therein when he is but small, and bind him fast to the glasse, and the glasse also to the tree, and let him grow, thus ye may have Apples of divers proportions, according to the fashion of your glasse. Thus may ye make of Cucumbers, Gourdes, or Pomecitrons, the like fashion.



These three branches and figure of grafting in the shield in Sommer, is, the first branch sheweth how the barke is taken off, the middle place sheweth, how it is set too, and the last branch sheweth how to bind him on, in saving the oylet or eye from bruising.

To graffe many sorts of Apples on one tree.

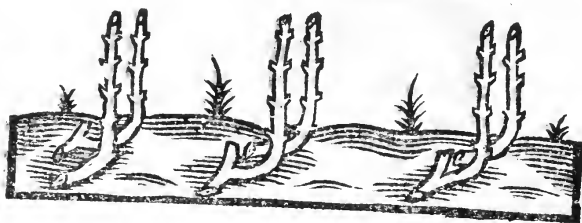
YOU may graffe on one Apple tree at once, many kind of Apples, as on every branch a contrary fruit, as is afore declared, and of Pears the like: but see as high as you can, that all your Cions be of like springing, for else the one will not grow and shadow the other.

To colour Apples.

TO have coloured Apples, with what colour ye shall think good, ye shall bore slope a hole with an Auger, in the biggest part of the body of the tree, unto the midst thereof, or thereabouts, and then look what colour ye will have them of. First ye shall take water, and mingle your colour therewith, then stop it up againe with

with a short pin made of the same wood or tree, then wax it round about: ye may mingle with the said colour what spice ye list, to make them tast thereafter: thus may ye change the colour and taste of any Apple: your colours may be of *Saffron*, *Tourne sole*, *Brafell*, *Saunders*, or others what ye shall see good. This must be done before the Spring do come: some do say, if ye graffe on the Olive stock, or on the Alder stock, they will bring red Apples. Also they say, to graffe to have fruit without core ye shall graffe in both the ends of your Cion into the stock, and when they be fast grown to the stock, ye shall cut it in the midst, and let the smaller end grow upward, or else take a Cion and graffe the small end of the stock downward, and so shall ye have your Apple tree on *S. Lamberts day*, (which is the 17 of *September*) they shall never wast, consume, nor wax dry, which I doubt.

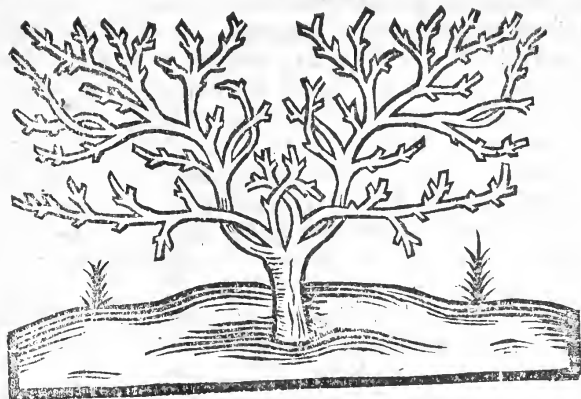
The setting of Vine plants.



These figures do shew how ye ought to plant and set your Vines, in two and two together, the one to have a part of the old tree, and the other may be all of the last Cion: but when ye plant him with a part of the old tree, he shall commonly take root sooner then the new Cion: ye must weed them every moneth, and let not the earth be too close above their roots at the first, but now and then loose it with a spade as ye shall see a raine past, for then they shall enlarge, and put forth better. Further herin ye shall understand after.

The Art of

How to prune or cut a Vine in winter.



THis figure sheweth, how all Vines should be pruned and cut, in a convenient time after Christmas, that when ye cut them ye shall leave his branches very thin, as ye see by this figure: ye shall never leave above two or three leaders at the head of any principal branch, ye must also cut them off in the midst between the knots of the young Cions, for those be the leaders which will bring the Grape, the rest in order ye shall understand as followeth.

Of the Vine and Grape.

Somewhat I intend to speak of the ordering of the Vine and Grape, to plant or set the Vine: the plants or sets which be gathered from the Vine (and so planted) are best, they must not be old gathered, nor lie long unplanted after they be cut, for then they will soon gather corruption, and when ye do gather your plants, ye must take heed to cut and choose them, where ye may with the young Cion, take a joynt of the old wood with the new, for the old wood wil sooner take root then the new, & better to grow then if it were all young Cion, ye shal leave the old wood to the young Cion, a foot, or half a foot, or a shaftnet long, the young Cion ye shal cut the length of three quarters of a yard or thereabouts, and ye shal choose of those young Cions that be thickest joynted or nigh joynts together, and when ye shal plant or set them, looke that your ground be wel digged in the winter before, then

in

in *January* ye may both cut and Plant, but cut not in the frost, for that is danger of all kinde of trees, or ye may plant in the beginning of *February*, and when ye doe plant, ye shall take two of those plants, and set or lay them together, a foot deepe in the earth, for two plants set together will not so soon faile, as one alone, and lay them a foot long wayes in the earth, so that there may be above the earth three or foure joynts : ye may plant a young Cion with the old, so that he be thick or nigh joynted, for then he is the better to roor, and also to bring fruit : then when ye have set or laid them in the earth, then cover them well therewith, in treading it fast downe unto the plants, but let the ends of your Cions or Plants be turned upright, above the earth three or foure joynts, if there shall be more when they be set, ye shall cut them off, and ye shall cut them alwaies in the midst betweene the two joynts, and then let them so grow, and see that ye weede them alwaies cleane, and once a month loose the earth round about them, and they shall prove the better. If it be very dry and hot in the Summer after, ye may water them, in making a hole with a Crow of Iron to the root, and there ye shall poure in water in the evening. As for the pruning of them, when the Grape is taken and clustered, then ye may breake the next joynt or two after the Grape, of all such superfluous Cions as yee shall see cause, which will cause the Grape to wax bigger : Yee may also breake away all superfluous buides, or slender branches, which commeth about the root, or on the under branches which ye thinke will have no Grape, and when ye prune or cut them in winter following, ye shall not cut the young Cion nigh the old, by three or foure joynts, ye shall not cut them like Oziars, to leave a sort of heads together on the branch, which doth kill your Vine, ye shall leave but one head, or two at the most, of the young Cions upon the old branch, and to cut those young Cions three or foure knots or joynts off, for the young Cions doe carry the the Grape alwaies, and when ye leave upon a great branch many Cions, they cannot be well nourished, and after ye have so cut them in winter, ye shall bind them with Oziars, in placing those young branches as ye shall see cause, and in the spring time, when the branches are tender, yee shall binde them so, that the stormie tempest or winde doe not hurt them, and to binde them withall, the best is, great soft Rushes, and when the Grape is clustered,

then

then ye may breake off all such branches as is afore declared, upon one old branch, three or foure heads be enough, for the more heads your branch hath, the worfe your Grape shall be nourished, and when ye cut off any branch, cut him off hard by or nigh the old branch : if your Vine wax old, the best remedy is, if there grow any young Cion about the root, yee shall in the winter cut off the old Vine hard by the ground, or as nigh as you can, and let the young Vine lead, and he will continue a long time, if ye cover and fill the place about the root with good earth againe. There is also upon, or by every cluster of grapes, a small Cion like a Pigs taile, turning about, which doth take away the sap from the Grape, if ye pinch it off hard by the stalke of your grape, your fruit shall be the greater. If your Vine wax too rank and thicke of branches, ye shall dig the root in winter, and open the earth, and fill it up againe with sand and ashes blend together, and whereas a Vine is unfruitfull and doth not beare, ye shall bore a hole (with an Auger) unto the heart or pith, in the body or thickest part thereof, then put in the said hole a small stone, but fill not the hole close therewith, but so that the sicknesse of the Vine may passe thereby. Then lay all about the root of good earth mingled with good dung, and so shall he not be unfruitfull, but beare well ever after : or also, to cast on old mens Urine or pisse, all about the root of the barren Vine, and if he were halfe lost or mard, he should grow againe, and wax fruitfull, as before : This is to be done in winter.

To have Grapes without stones.

Yee shall take young plants or branches, and shall set or plant the top or small end downward in the earth, and so ye may set two of them together for failing, as I have afore declared of the others, and those branches shall bring Grapes without stones.

To make your Vine to bring a Grape to taste like Claret.

TO make your Vine to have a Grape, to taste like Claret Wine, and pleasant withall, ye shall bore a hole in the stock unto the heart, or pith thereof, then shall ye make a lectuary with the powder of cloves, of cinamon mingled with a little fountaine or running water, and fill the said hole therewith, and stop it fast and close with wax, and so binde it fast thereon, with a linnen cloth, and those Grapes shall tast like claret wine.

Of gathering your Grapes

ALl Grapes that men do cut, before they are thorow ripe, the wine shall not be naturall, nor yet shall long endure good: But if ye will cut or gather grapes to have them good, and to have good Wine thereof; ye shall cut them in the full, or soon after the full of the Moon, when she is in *Cancer*, in *Leo*, in *Scorpio*, and in *Aquarius*, the Moon being in the waine, and under the earth,

To know if your Grape be ripe enough.

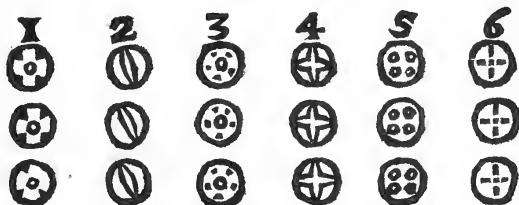
FOr to know if your grape be ripe enough, or not, which yee shall not onely know in the tast, but in sight and taste together, as in tast if they be sweet, and full in eating, and in sight, if the stone will soone fall out, being chafed or bruised, which is the best knowledge, and also whether they be white or blew, it is all one matter: The good Grape is he, which commeth out all watry, or those which be all clammy as birdlime: By these signes shall ye know when to cut, being thorow ripe or not, and whereas you doe presse your Wine, ye must make your place sweet and cleane, and your vessels within to be cleane also, and see that they have strong heads, and those persons which doe presse the Grape, must looke their hands, feet, and body be cleane washed, when as they goe to presse the Grape, and that no woman be there having her termes: And also ye shall eat of no Cheboles, Scalions, Onions, or Garlike, Anniseeds, or such like: For all strong favours your Wine will draw the infection thereof, and as soone as your Grape is cut and gathered, you shall presse your Wine after as soone as ye may, which will make your Wine to be more pleasant and stronger, for the Grapes which tarry long unprest, maketh the Wine to be small and ill: ye must see that your Vessels be new and sweet within, and to be washed with sweet water, and then well dried againe, and to perfume them with mastick, and such sweet vapour, and if your vessel chance not to be sweet, then shall ye pitch him on the sides, which pitch will take away all evill, and such stincking savour therein.

To prove or tast Wine.

ANd whensoever ye will prove or tast any Wine, the best time is, early in the morning, and take with you three or foure sops of bread, then dip one after another into the wine, for therein ye shall find (if there be any sharp tast of the wine. Thus I leave (at this present) to speak any further here of the Vine and Grape.

If this my simple labour be taken in good part (gentle Reader) it shall the more hereafter encourage me, to set forth another book more at large, touching the Art of Planting and Graffing, with other things necessary to be knowne.

Here followeth the best times how to order or choose, and to set or plant Hoppes.



IN this figure ye shall understand, the placing and making of the Hoppe hills, by every Cipher over his head: The first place is shewed, but one Pole set in the midst, and the Hoppe beneath; The second sheweth, how some doth chop downe a Spade in the midst of the Hill, and therein layes his Hop roots. The third place is shewed, how other some doe set out one Pole in the midst, and the Hop roots at holes put in round about. The fourth place sheweth, how some chop in a Spade cross in the top, and there layes in his roots. The fifth place sheweth, how some doe set foure Poles therein, and put the Hop round about the Hill. The sixth place sheweth, that some use to make crosse koles in the sides, and there laye the Hop roots. Thus many practises have been proved good: Provided alwaies that your Hills be of good fat earth, specially in the midst downe unto the bottome. This I thought sufficient to shew by this figure, the diversity in setting, whereof the laying of the Hop is counted the surest way.

THe best, and common setting time of Hoppes, is from mid November, to mid February, then must ye digge and cleanse the ground of weeds, and mixe it well with good mould and fat earth. Then divide your hills a yard one from another orderly, in making them a yard a funder, and two foot and a halfe broad in the bottome, and when that ye plant them, ye shall lay in every hill

hill three or foure roots : Some doe in setting of them lay them crosswise in the midit of the hill, and so cover them againe : some sets the roots in four parts of the hill, other some doe make holes round about the hills, and put the roots therein, and so cover them againe light with earth : Of one short root in a yeare ye may have many plants, to set and lay as ye shall see it good, and it shall be sufficient for every plant, to have two knots within the ground, and one without : some do chop a Spade cross in the hill, and lay in crosse the Hop, and so cover it.

To choose your Hop.

Yee shall choose your roots best for your Hop, in the Summer before ye shall plant them, for then ye shall see which beares the Hop, for some there is that brings none; but that which beares, choose for your plants, and set of those in your hills, for so shall ye not be deceived, and they shall prosper well.

To sow the seeds.

Some doe hold, that ye may sow among other seeds, the seeds of Hops, and so will increase and be good to set, or else to make beds, and sow them alone, whereby they may increase to be set, and when they be strong, ye may remove and set them in your hills, and plant them as the other before mentioned.

The setting your Poles.

The best time is in *Aprill*, or when your roots be sprung halfe a yard long or more, then by every plant or Hop, in your hills, yee shall set up a pole of 13. or 14. foot long, or thereabouts, as cause shall require. Some doe use to set but foure poles in every hill, which is thought sufficient, and when ye shall set them, see that ye set them so fast, that great windes doe not cast them down.

How to prune the Hop-tree.

Yee shall marke when the Hop doth blossome, and knit in the top, which shall be perceived to be the Hop, then take and cut up all the rest growing thereabouts (not having Hop thereon) hard by the earth, that all those which carry the Hop, might be the better nourished : thus shall ye doe in Summer, as ye shall see them increase and grow, untill the time of gathering.

To gather the Hoppe.

AT such time afore *Michaelmas*, as ye shall see your Hop wax browne, or somewhat yellow, then he is best to be gathered in a dry day, in cutting your Hop by the ground, then pluck up your pole therewith for shaking of your Hop, so carry them into some dry house, and when ye have so pluckt them, ye shall lay them on boarded loits, or on hurdels of cloths, that the wine may dry them, and the aire, but not in the Sun, for the same will take away the strength thereof, nor with fire, for that will doe likewise; and ye shall tesse and turne them daily till they be dry: to try them when they are dry, hold them in your hand a space, and if they cleave together when ye open your hand, they are not then drie: but if they shatter asunder in opening your hand, then ye may be sure they are drie enough. If not, let them remaine, and use ye them as is before said. Ye shall understand the driness of them is to preserve them and long to last, but, if need be, ye may occupie them well undryed, with less portion to sow.

What Poles are best.

YEe shall prepare your Poles of such wood as is light and stiffe, and which will not bow with every winde, the best and meekest time to get them is in Winter, when the Sappe is gone downe, and as soone as ye have taken of your Hoppe, lay your Poles in fundry places untill the next spring, whereby they may endure the longer.

How to order and dresse your Hills.

AFter the first yeare is past, your Hop being increased to more plenty of roots in your hills, ye shall after *Michaelmas* every yeare, open your hills, and cast downe the tops unto the roots, uncovering them, and cut away all the superfluous roots. some doth pluck away all the roots that spreads abroad without the hills, then opens the hills and puts of good new earth unto them, and so covers them againe, which shall keepe them from the Frost, and also make the ground far, so shall ye let them remaine unto the Spring, of the yeare, in *February* or *March*, then againe, if ye shall see any superfluous roots, ye may take them away, and cut them up, and your Hop shall be the better; then againe cast up the earth about your hills, and cleansing them from all weeds and other roots, which will take away their strength, if the herbs remaine, so let them rest till your Poles may be set therein.

Of ground best for your Hop.

THe Hoppe delighteth and loveth a good and reasonable fat ground, not very cold, nor yet too moist, for I have seene them prove well in *Flanders*, in drie sandie fields, the Hoppe hills being of good fat earth, ye may (as some saie) for great neede, make your Hoppe grow and beare on any kinde of rockie ground, so that your hills be great and fat earth, but the lower ground commonly proveth the best, so that it stand well and hot in the sun.

A note of the rest above-said.

YE shall marke and understand, all this order above-said, is to have many Hoppes and good, with a few roots, and plants placed in a small plot of ground. Ye shall understand, the wilde Hoppe that groweth in the hedges, is as good to occupie as the other, to set or plant in any other place, but looke that ye take not the barren Hoppe to plant, some Hoppe will be barren for want of good earth, and lacke of dressing, which ye shall perceive (as I have told you) in the summer before, that when they should beare they will be barren, which is for want of good fat earth, or an unkinde yeare, or lacke of weeding and good ordering. Therefore such as are minded to bestow labour on the ground, may have as good Hoppe growing in this Country, as is in other Countries: but if ye will not goe to the cott, to make Hop-yards, ye may with a light charge have Hops grow in your hedge-rows, to serve as well as the other, and shall be as good for the quantity as the other in all respects: ye may (for lack of ground) plant Hop-roots in hedge-rows, when ye doe quick-set, set up poles by them when time shall require in the spring, and to bestow every winter after the gathering your Hoppe; on every hill head, a shovell full of dung to comfort the earth, for then will they beare the more plentie of Hoppe the next yeare following: to conclude, you that have grounds may well practise in all things afore mentioned, and specially to have Hoppe in this ordering, for your selves, and others: also ye shall give encouragement for other to follow her after, I have heard by credible persons, which have knowne a hundred hills, (which is a small plat of ground) to beare three hundred pound of Hoppe, so that the commoditie is much, and the gaires great: and one pound of our Hoppe dried and ordered, will goe as farre as two pound of the best Hoppe that cometh

meth from beyond the Seas. Thus much I thought meet and necessa-
rie to write, of the ordering and planting of the Hop.

How to pack your Hops.

WHen your Hops be well tossed and turned on boarded
floores, and well dried (as I have afore shewed) ye shall
put them into great sackes according to the quantitie of your
Hoppes, and let them be trodden downe hard together, which
will keepe their strength longer; and so ye may reserve them,
and take at your pleasure. Some doe use (which have but small
store) to tread them into drie Fats, and so preserve them for
their use, which is counted the better way, and the
lesse portion doth serve, and will longer
keepe their vertue and strength.

*Wishing long life and prosperous health,
To all furtherers of this Common-Wealth.*

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