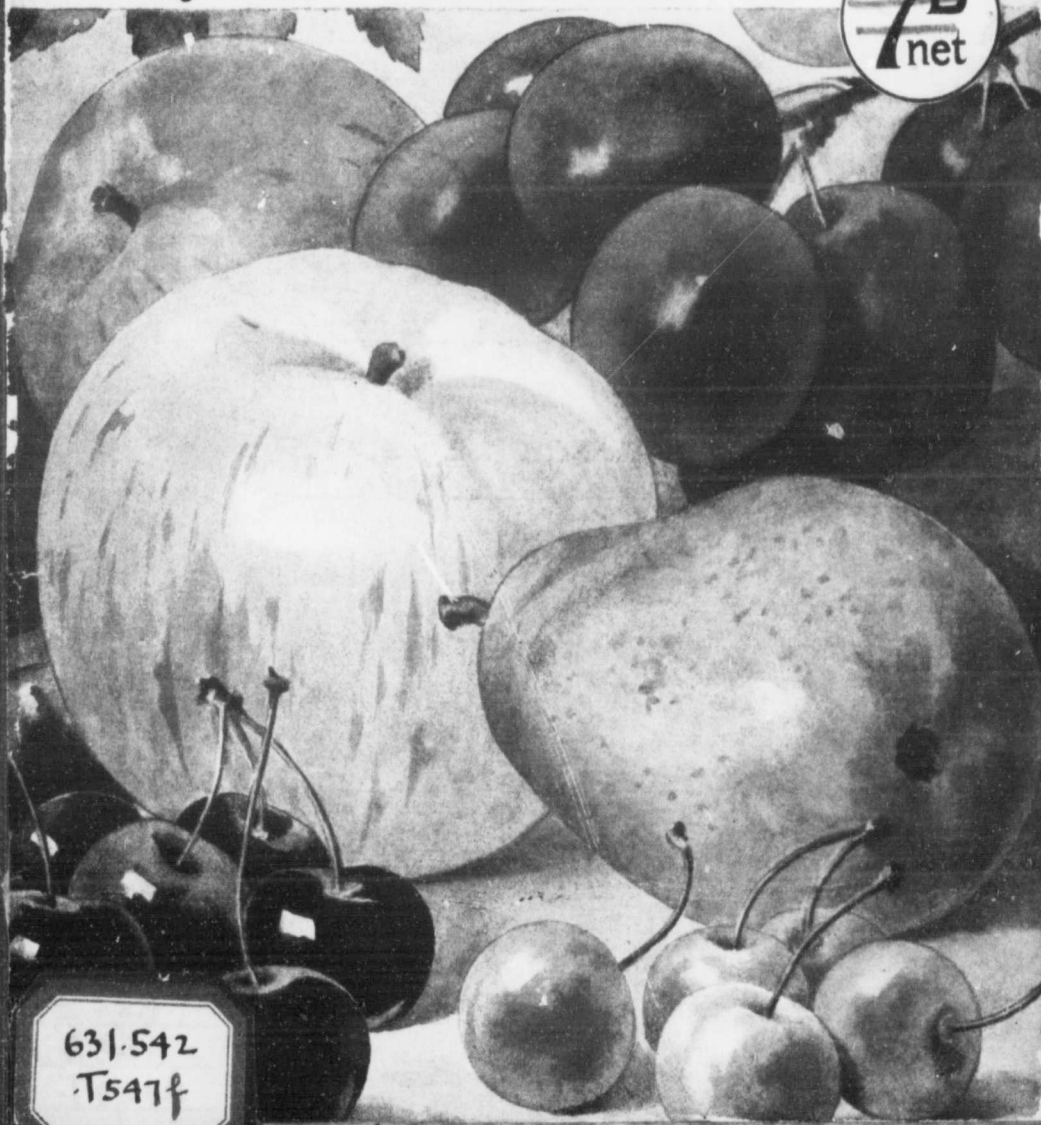


Gardening Handbooks for Amateurs

FRUIT TREE PRUNING

by H.H. THOMAS 254

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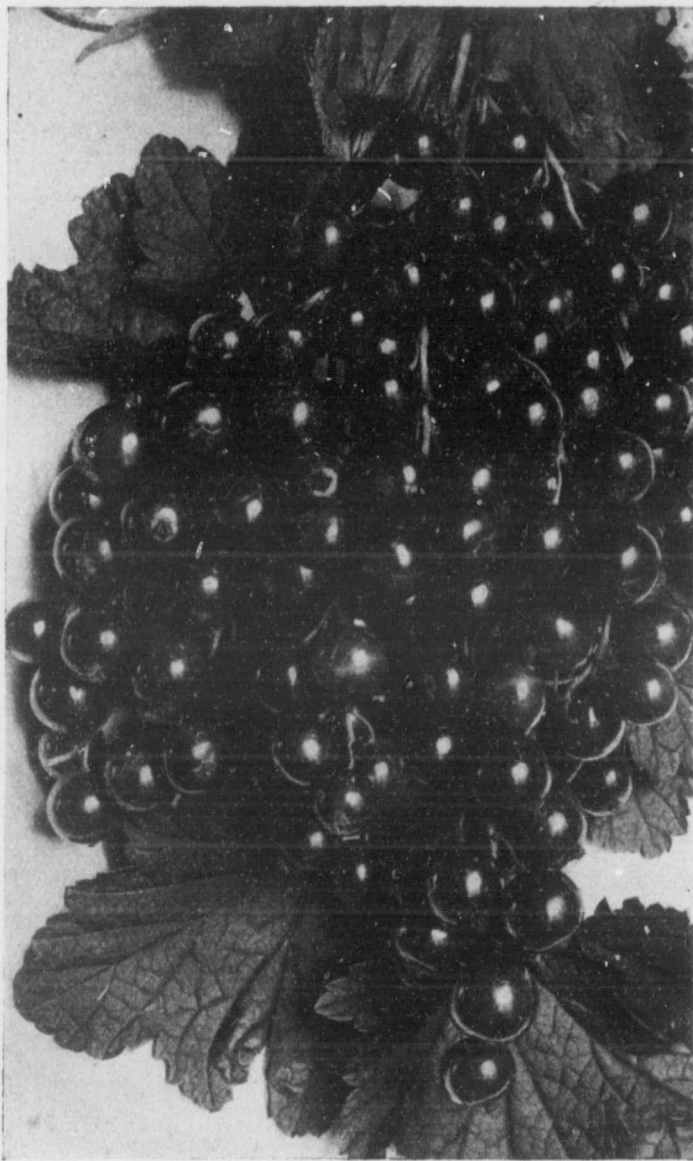
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PRUNING FRUIT TREES

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Black Currant Boskoop Giant. Correct pruning assists in producing a good crop

PRUNING FRUIT TREES

BY

H. H. THOMAS

(Editor of "The Gardener")

With numerous Illustrations from
Sketches and Photographs

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PRUNING FRUIT TREES

THE practice of pruning fruit trees is governed by certain principles, which vary according to the kind of fruit dealt with, and in some cases according to the variety. The variation, however, is not so great as to perplex those who have grasped the essentials of the work. The principal objects of pruning are to limit the number and arrangement of the branches so that each one may be as fully exposed as is practicable to sunshine and air, and thus be able to develop and mature its buds. There is not much doubt that if the amateur would merely cut out superfluous branches and shoots from fruit trees, or, better still, prevent their development, he would do much towards promoting fruitfulness; if the branches are crowded, satisfactory crops cannot be expected. Some kinds bear fruit chiefly on spurs—short spur-like shoots which form on the branches; others produce their crops on shoots of the preceding year's growth. The principal kinds in the former group are Apple, Pear, Sweet Cherry, Plum, Apricot, Gooseberry, and Red and White Currant.

Pruning Fruit Trees

In the latter group are found Black Currant, Peach and Nectarine, and Morello Cherry. Although this classification cannot be said to be definite and arbitrary, because there are notable exceptions which will be referred to later, it is sufficiently accurate to be recommended to the amateur for commitment to memory. So far as the second group is concerned, it may be said that there are no exceptions, and all the fruits included can be pruned in a similar manner with satisfactory results.

When to Prune.—The chief seasons at which pruning is carried out are summer and winter. The winter pruning may be done at any time from late December until early March, the month of January being as suitable a period as any. Summer pruning is practised from late June until early August; the exact time varies according to the aspect and locality of the garden and to the position of the trees; those growing in a warm spot, or against a wall, are naturally ready to be pruned earlier in the summer than those in an exposed quarter. Disbudding is a form of pruning to which the amateur grower may well pay greater attention; it is obviously better to prevent the development of a shoot that is not required than to allow it to grow and then cut it

🌿 🌿 🌿 🌿 🌿 **Pruning and Training**

out. Disbudding is a necessary task, for example, in the cultivation of Peach and Nectarine, but it can be practised with advantage on many other fruit trees. It consists in removing superfluous shoots while they are small.

Pruning and Training Young Trees.—

During the first few years of its life a fruit tree needs very careful pruning, so that it may be of proper shape, and possess the correct number of branches accurately arranged. Most amateurs prefer to buy trees two or three years old, so that they can gather fruit as soon as possible; such trees, however, cost more than “maidens,” and the work of training a fruit tree from its earliest days is full of interest and instruction. If a bud is inserted in the stock in July, and the bud starts into growth the following spring, the tree is sold as a “maiden” in the following autumn. Such a tree can be trained in any desired form—as a standard, bush or pyramid, horizontal espalier, cordon, or fan-trained. Whatever the form of tree decided upon, the first proceeding is the same—namely, to cut down the single stem of the maiden to within four or five buds of the base. If, however, it is desired to form a standard, it is sufficient to shorten the stem of the maiden tree by one-third or, if it is weakly, by one-half,

Pruning Fruit Trees

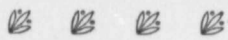
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for the object is to enable the tree to develop its full height of stem as soon as possible. To form a horizontal espalier or fan-trained tree, for planting against a wall or fence, the shoots



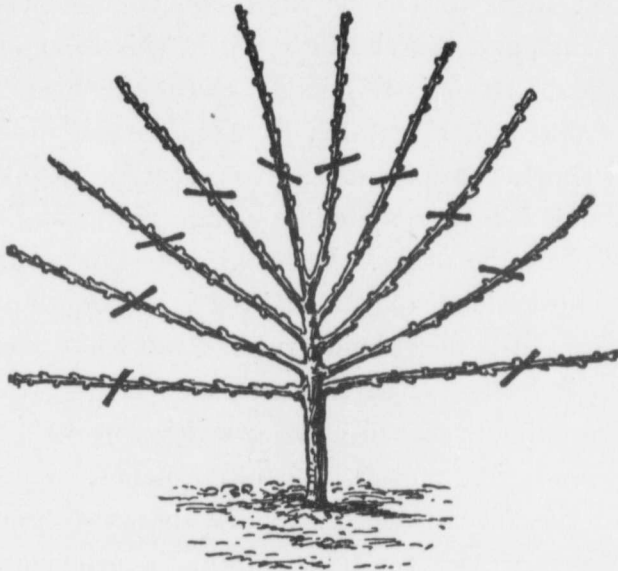
How not to train a fan-shaped fruit tree. Lines indicate where to prune a young tree

which develop from the lower buds are trained at right angles to the stem; they are secured to stakes driven into the ground to keep them straight, and growing in the required direction; the shoot from the uppermost bud will continue the height of the tree. A cordon is formed by



Training Young Trees

allowing only the uppermost shoot to extend, the points of all others being pinched out when they have formed six leaves; these shortened shoots will eventually form fruit spurs. Care must be taken not to allow too many side shoots



The correct way to train a fan-shaped fruit tree; prune in January as shown by the cross lines

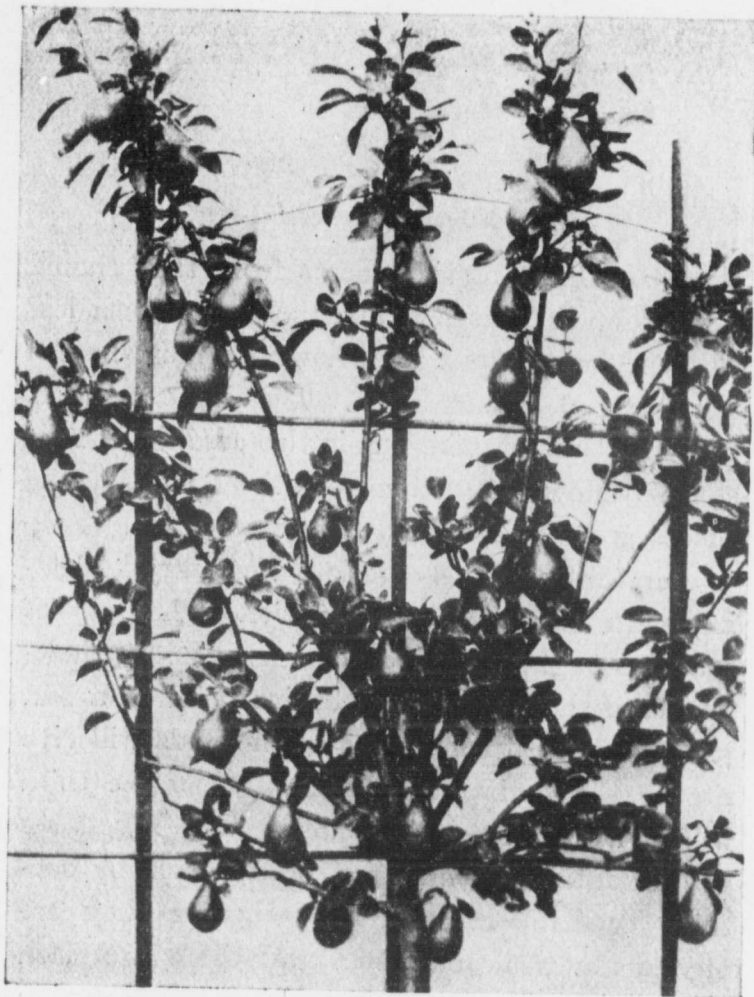
to remain on the stem; they ought to be about 6 inches apart.

A bush tree is obtained by allowing three of the buds to develop in an outward direction, but no central stem is permitted to grow; the ideal bush tree is of more or less cup-shaped form, the

Pruning Fruit Trees

centre being open. The pyramid differs from the bush in having a central stem on which branches form at intervals; thus, in this case, the uppermost shoot is trained in an upright direction, and others will form the lowest branches. The fan-trained form of tree is used chiefly for Peach, Nectarine, and Morello Cherry; in this case, also, no central stem is required; the lower branches are trained horizontally, others should radiate from the lower part of the tree and be disposed at about 4 inches apart, each one rising slightly more than the other. In forming a standard the uppermost shoot of the maiden is alone allowed to grow, all others being rubbed off while small. When it has reached the necessary height, three or four shoots are allowed to develop to form the foundation of the head of branches.

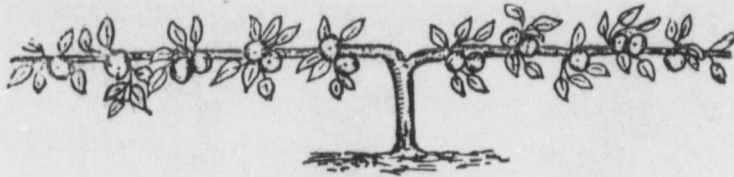
In the second season all the shoots or young branches of the previous summer's growth are shortened by one-third if vigorous, or by one-half if weak. In training a cordon, only the uppermost shoot is allowed to develop fully, and this is trained in an upright direction to continue the stem; all others are "pinched" or "stopped" when they have formed six leaves. In dealing with the bush tree, each of the three branches of the first year ought to give rise to two, making



Pear tree planted against a trellis in the open garden

Pruning Fruit Trees

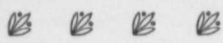
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A double horizontal cordon of Apple

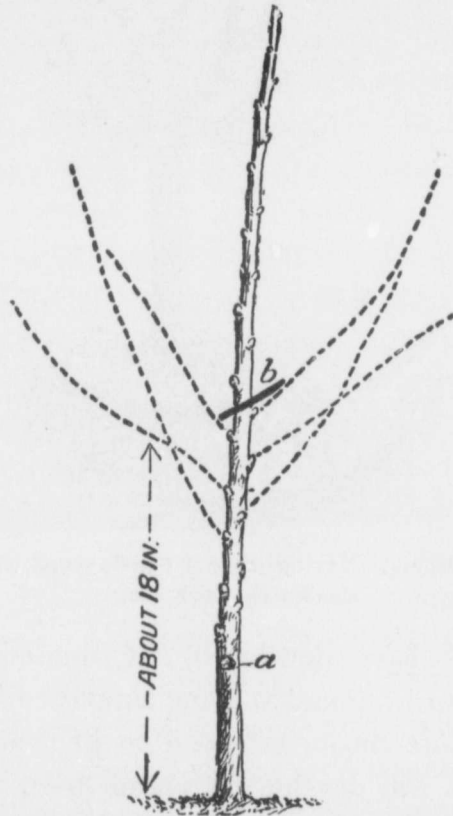
six altogether; as side shoots form they should be "stopped" immediately above the sixth leaf to form fruit spurs which, however, must be not less than 6 inches apart. The same remarks apply to the pyramid, but in this case the central stem is allowed to extend—in the bush tree the shoots growing outwards only are left.

Careful training is especially necessary in dealing with the horizontal espalier. The sets of branches ought to be about 10 inches apart, therefore care should be taken to cut back to a bud just above this point; two of the buds will give rise to the horizontal branches, while the third will continue the upright stem. The lowest set of horizontal branches must be cut back by one-third or half, according to whether they are vigorous or weak, one shoot near the end of each being allowed to grow. The object of shortening the branches annually, while the trees are young, is to strengthen them, and to force the buds throughout the full length of branch to burst



Training Young Trees

into growth; if they were not pruned in this way, some of the buds only—those nearest the end of the branch—would grow; the others would remain dormant, and there would be large portions of branch bare of fruit spurs. The time



Maiden Apple tree: *a*, where budded; *b*, where to cut in winter. The dotted lines show future branches

Pruning Fruit Trees

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to cut back the branches of young fruit trees in the way described is in January. Summer pruning, however, must not be neglected. It consists in allowing only the proper number of side shoots to form and of "stopping" them when










Root pruning. Having made a trench round the tree, shorten the thick roots

six leaves have developed. If treated in this way, the main branches being shortened in winter and the side shoots attended to in summer, the fruit trees will develop on sound lines.

Root Pruning.—The pruning of the branches of a fruit tree is a subject that cannot be dealt

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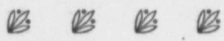
Root Pruning

with satisfactorily alone, for the development of the tree is influenced by the soil, climate, and position in which it grows, and by the stock—particularly in the case of Apples and Pears—upon which it is grafted. Young fruit trees often make luxuriant growth which must be checked; it is not gross and vigorous shoots or branches that are required, but those of moderate thickness. When young trees produce thick, unfruitful branches it is advisable to root-prune them; pruning the branches does not improve matters—frequently it makes them worse. Root pruning is accomplished by digging a trench at some distance from the stem of the tree, and working with a fork underneath the tree and searching for thick roots; these, when found, are shortened by about half, and if they are found to be growing straight down into the soil, they are relaid in a horizontal position. The roots having been severed, the soil is filled in and made firm. A simpler way of dealing with young trees is to lift them every autumn for the first few years after planting; this can be done without difficulty and without the labour of digging a trench. The soil is removed until the chief roots are found, and the tree is then lifted with the object of bringing the roots nearer the surface, the soil

Pruning Fruit Trees

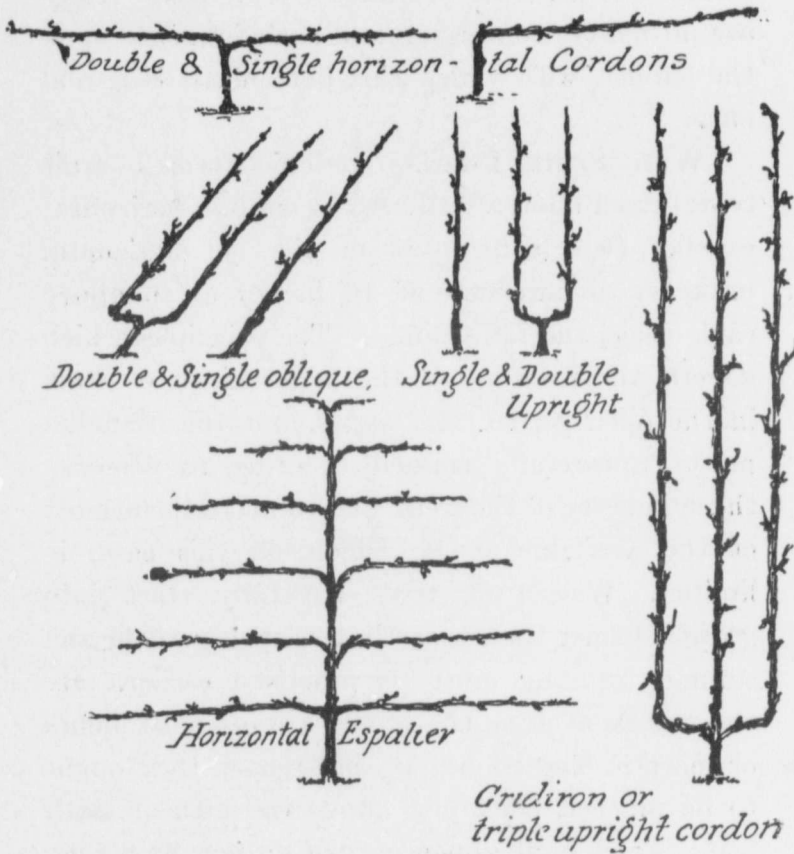
beneath them being trodden firmly. Lifting, of course, can only be done with comparatively small trees and if they are so treated every autumn for the first two or three years after planting. Fruit trees should be planted in firm soil; if the ground is not well trodden about the roots, the trees are very likely to make long-jointed, gross growth. No manure from the stable or farmyard ought to be mixed with the soil when planting young fruit trees; they grow quite vigorously enough during the first few years of their lives without help of that kind. Later on, when they bear crops, manure can be added in the form of a topdressing on the soil immediately above the roots; in fact, a topdressing or mulch is usually beneficial to young trees during the summer months.

Stocks of Fruit Trees.—The influence of stock on the question of pruning is an important matter. Apple trees on the Crab stock, and Pear trees on the Pear stock, make vigorous growth, and eventually develop into large trees, and it is useless to attempt to restrict their growth by severe pruning. Such trees are for orchard planting, or for large gardens; not only do they take up a lot of room, but they are slow in coming into fruit bearing. The amateur with limited



Stocks of Fruit Trees

garden space should choose Apples on the Paradise stock and Pears on the Quince stock; these are



Some of the chief types of trained fruit trees

known as dwarfing stocks because trees budded on them form masses of fibrous roots near the surface, and compact, short-jointed growth, and

Pruning Fruit Trees

are amenable to orthodox pruning. These matters, which may at first sight be thought to have no connection with the pruning of fruit trees, really are intimately concerned, and their influence upon the subject with which this book deals is a real one.

Wall Fruit Trees.—The chief forms of fruit trees grown upon a wall are the cordon, horizontal espalier (which has sets or tiers of horizontal branches at intervals of 10 inches or so above each other) and fan-trained. The principles which govern the pruning of the same kinds of fruit in the open garden still apply, but the branches must be carefully trained in order to preserve the symmetry of the trees, and to make the utmost of the available space, which, in this case, is limited. Wall fruit trees naturally start into growth sooner than those in the open garden, and summer pruning must be practised earlier. By the middle of June the shoots are often 10 inches or more in length, and at that season they ought to be pinched back just above the fifth or sixth leaf. Trees in the open garden do not, as a rule, need to be summer pruned until a month later; if these are pruned too soon, numerous other shoots are produced which in turn have to be “stopped,” thus causing additional labour,











*For the South wall choose
the luscious Peach & Nectarine*

Pruning Fruit Trees

whereas, if summer pruning is delayed until the middle of July, or even a fortnight later in northern gardens, further "stopping" may be dispensed with. It is, however, necessary to attend to the secondary or sub-lateral growths of wall fruit trees; they should be "stopped" when one or two leaves have formed. It is an excellent practice,* when the trees are in full leaf, to observe whether or not the spurs are too close together; if it is found that in some places they are too thick, they should be cut out as soon as the fruit is gathered. On old trees, especially those on a wall or trellis, the fruit spurs often become very long and straggling, and may be shortened with advantage.

How to Prune.—The professional gardener generally uses a knife for the purpose; the amateur usually makes use of *sécateurs*. *Sécateurs* are undoubtedly more convenient than the knife, but they are less likely to make a clean cut than a sharp knife; if at all blunt, they may squeeze the branch instead of cutting through it cleanly. Providing a knife is sharp, it is to be preferred to *sécateurs* for pruning, because it makes a cleaner cut; but sharp *sécateurs*, owing to their being more easily handled, are perhaps more satisfactory in unskilled hands. Blunt *sécateurs*

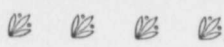
        **How to Prune**

bruise the wood, and their use may lead to unpleasant results. See, therefore, that the *séca-teurs* are sharp. It is sound practice to prune to a bud pointing towards the outside of the tree, and this is especially necessary in dealing with a young tree during the years in which its form is controlled. If, as may happen, the uppermost bud, pointing outwards, does not start into growth in spring, but one below it, pointing in the opposite direction, does so, it is advisable to cut back below the latter to a bud pointing in the required way. In pruning a branch or shoot, always cut just above the bud; do not cut 2, 3, or 4 inches above it; not only does the portion of branch above the bud look unsightly, but it will die back to the bud. The cut should commence on a level with the bud, but on the opposite side of the branch, and should emerge just above the bud on the same side of the branch as the latter. When, for some reason, it is found necessary to remove large branches from a fruit tree—a practice to be avoided if possible—it is wise to brush over the cut surface with tar in order to prevent disease germs from entering. When fruit trees are pruned late in spring, it sometimes happens that they “bleed”; this is, for example, often the case with the Vine.

Pruning Fruit Trees

The best way to prevent "bleeding" (the exudation of sap) is to cover the cut surface with styptic or painter's notting, or wet clay may prove effective.

Pruning after Planting.—To prune or not to prune: that is the question so far as Apple, Pear, and Plum trees are concerned. Some say that it is better to allow the trees to make a season's growth, and not to prune until the second season after planting; they argue that the tree is likely to make weak growth the first season, even if pruned, and that when that weak growth is pruned the following year, the fresh shoots will again be weak; hence their advice not to prune until the second season, when the tree will be cut back beyond the first season's weak shoots. I believe that if fruit trees are planted in early autumn, as they ought to be, they will, as a rule, start into satisfactory growth the following spring, if pruned well back. If the trees are not planted until spring, the chances are that they will make little or no growth the same year, and in that case it is just as well to defer pruning until the second spring. Raspberry canes ought to be cut down to within 6 inches of the ground in the spring following autumn planting; if they are not planted until spring they may be cut

 **Pruning after Planting**

down at once. Unless this is done the canes will not produce fresh, vigorous shoots from the base, and if these do not appear the following year's crop will be poor. If, however, the canes are cut down as advised, there will be no fruit the first season (the fruit crop will in any case be poor the first summer, even if the canes are not pruned), but strong fresh stems will grow, and they will bear an excellent crop the following year. Autumn fruiting Raspberries ought also to be cut down in spring; they will bear fruit in autumn. The Loganberry, Blackberry, and allied fruits should be cut down in the spring following planting so as to ensure the development of strong canes for fruiting the following season. Peach and Nectarine branches ought to be shortened by about one-third or one-half; superfluous shoots will be disbudded as described on page 60, and the best shoots at the base of each branch will be trained in to replace others. Cherry and Apricot trees ought to be cut back by half or rather more until the required number of branches is obtained.

Apple.—The pruning of the Apple varies to some extent according to the variety, but, generally speaking, good results are obtained by orthodox summer and winter pruning. It is

Pruning Fruit Trees

always wise, however, as in dealing with the Plum, to allow a few of the most promising shoots to develop when summer pruning is practised, if there is room for them; often—and especially in the case of certain varieties—they will blossom



Wrong way of summer pruning. At (a) the side shoots have been cut back too hard; the result (b) is that the lowest buds have started into growth

and bear fruit the following year. It is only in the case of bush and pyramid trees that summer and winter pruning can be carried out regularly; the labour of attending to standards at both seasons is usually too great to allow of its being done; moreover, when standards are estab-



How the side shoots are pruned in winter



Showing how the side shoots are shortened in July

Pruning Fruit Trees

lished and in fruit bearing, they do not need much pruning, for growth is compact and fruit spurs form naturally. Such pruning of standards as is done should take the form of thinning out useless, unhealthy, and worn-out branches, or parts of branches, in winter. It is during the first five or six years of their lives that standard trees require attention at the hands of the pruner. If, during that period, the branches are allowed to develop only in the right direction and at the proper distance apart, fruit spurs will form naturally in due course. It is of importance to prune to a bud pointing outwards, so that the centre of the tree is kept open, and branches do not cross each other. Shoots not required to form new branches, or fruit spurs, ought to be cut out altogether.

In old standard Apple trees, thin shoots are often produced in great numbers inside the tree; they ought all to be cut out, for they are useless in themselves, and deprive the buds of the light and air which are so essential to their well being. One can give no better advice concerning the pruning of standard Apple trees than to say that the branches must be at about 18 inches apart, and that all other shoots except those required to form fruit spurs should be cut out,



Pruning the Apple

not shortened. In later years, providing superfluous shoots are removed, they will look after themselves to a very large extent.

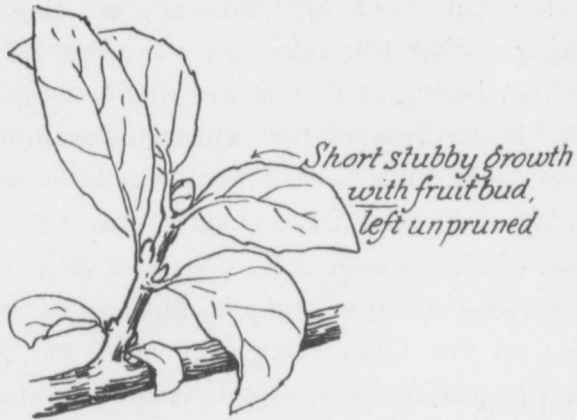
Attention to summer pruning, at which the side shoots are pinched back to within five or six buds of the base in July, is advisable while the trees are young, but the ends of the leading shoots are not shortened in summer. In winter they are cut back by one-half, so that the following spring the buds on the lower portion may start into growth and eventually form fruit spurs. If, at the winter pruning, the branches are not shortened in this way, the buds at the top only will start into growth, and the lower portion of the branch will be bare of fruit spurs.

The same remarks apply to bush and pyramid Apples on the Crab stock, the stock on which standards are budded. Such trees will develop into large specimens, and it is only after they have reached a fair size that they commence to yield any quantity of fruit. It is a different matter with Apple trees budded on the Paradise stock. In the course of years these make fair-sized trees, it is true, but they never grow so vigorously as those on the Crab stock. The amateur with but small space for fruit cultivation is strongly advised to obtain his trees on the Paradise stock; they

Pruning Fruit Trees

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come into fruit bearing earlier than the others, and are more amenable to orthodox pruning. If pruned in July, by "stopping" the side shoots above the fifth or sixth leaf, and cutting out any for which there is not room; and by further shortening the side shoots in winter to within two buds of the base, most of them can be man-



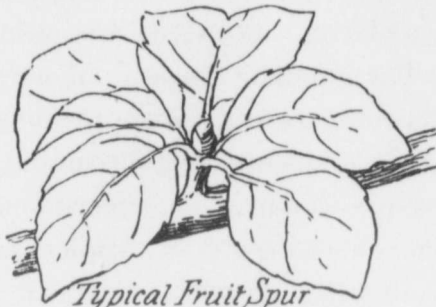
aged satisfactorily. Until the trees have reached the desired size, the leading shoots should remain untouched at the summer pruning, and in winter be shortened by one-third or, if weak, by half.

Apples that Need Special Pruning.— Although the orthodox methods of summer and winter pruning may be applied with success to most varieties of Apples, certain sorts need special



Pruning the Apple

attention to ensure satisfactory crops, and an exception must be made in these cases. Irish Peach, for example, is a variety that bears fruit chiefly on the ends of the branches, therefore care



*Typical Fruit Spur
which forms naturally*



*Short stubby growth
without fruit bud,
left unpruned.*

must be taken in pruning not to cut away the fruit buds, as an inexperienced worker is very likely to do. While the trees are young, pruning is necessary in order to ensure a proper shape and well founded branches, but in later years, when fruit-bearing commences, pruning must be

Pruning Fruit Trees

light and should chiefly take the form of thinning out useless shoots to make room for better ones, and to ensure the exposure of the branches to sunshine and air. The old and favourite variety, Cornish Gilliflower, is another Apple that bears its fruit similarly, and needs the same kind of pruning. The popular variety Worcester Pearmain needs comparatively little pruning after the first few years, and fruits best if pruning is directed chiefly towards thinning out superfluous branches and shoots. Some sorts of Apples are of pronouncedly upright growth, such, for example, as Annie Elizabeth and Charles Ross, while others—as, for instance, Lane's Prince Albert—have wide-spreading branches. Those of the former class should always be pruned to a bud pointing outwards, otherwise they will soon become crowded with shoots in the centre; this principle applies to pruning generally, but it is especially necessary in dealing with varieties of unusually upright growth. Apples of spreading growth should be pruned to buds pointing in an upward direction. In dealing with vigorous varieties like Bramley's Seedling, Warner's King, and Gascoyne's Scarlet, the pruning must not be too severe, otherwise branch growth becomes too strong, and at the expense of the formation of fruit buds. If the

🌿 🌿 🌿 🌿 🌿 Pruning the Apricot

branches are so far apart that they are well clear of each other when in leaf, and growth is still too vigorous, then root pruning must be resorted to. The root pruning of large trees is a laborious task, and, as a rule, is unnecessary if the work is done while they are young, for it is chiefly then that extra vigorous growth commences.

Apricot.—This delicious fruit is not commonly grown in amateurs' gardens, yet it is well worth space upon a wall facing south or southwest. Unfortunately, the branches have an unaccountable habit of dying, and for this reason the Apricot often causes disappointment. But if the tree is planted in well-dug loamy soil with which lime rubble is freely mixed, and not excessively manured with farmyard manure, there is no reason to anticipate failure, providing pruning is properly carried out. It is when the trees are in cold and ill-prepared soil, and when pruning is carelessly done, that Apricot trees are likely to prove unsatisfactory. As much of the pruning as possible should be carried out in summer by means of disbudding and "stopping" the green shoots, rather than by cutting in winter. The Apricot tree bears fruit on spurs, and on young shoots which should be trained in whenever opportunity offers, thus the pruning is similar

Pruning Fruit Trees

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to that followed in the case of the Plum. All shoots for which there is not room ought to be rubbed off in summer while they are small. Not only does this do away with the necessity for winter pruning, but it allows the remaining shoots a better chance of development. All side shoots are "stopped" above the fifth leaf, but watch



Pruning the Apricot. Side shoots are shortened and the leading growths are cut back slightly

should be kept for the most promising, and if there is room to train them on the wall, they should be allowed to grow; at the winter pruning they are shortened by one-half or one-third, according to their vigour, the weakest being cut back the most. Then all that remains to be done in winter is to shorten to within two buds of the base the side shoots already partially shortened. The Apricot is usually grown as a

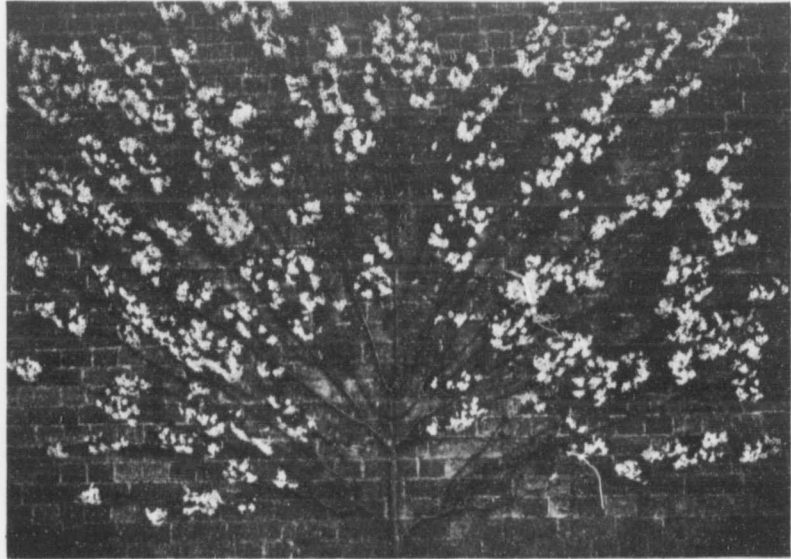
 **Pruning the Cherry**

fan-shaped tree, or as a horizontal espalier, and care must be taken, while the tree is young, to train the branches accurately in order to produce a symmetrical specimen. Whenever an old, worn-out branch, or part of it, can be replaced by a fresh young shoot, the former should be cut back, as soon as the fruit is gathered, to the point at which the latter originated.

Sweet Cherry.—Although, in common with all fruit trees, the Cherry must be pruned during the first few years of its life, to obtain the required number of branches and the proper form of tree, the pruning knife must be used very carefully in later years. In the case of trees in the open garden, the amateur should endeavour to achieve the object in view by disbudding, rather than by cutting back shoots in winter. The Cherry tree is very liable to a malady known as “gumming”—affected trees exude a quantity of gum-like liquid and are seriously weakened—and cutting mature branches is liable to give rise to this evil. When the requisite number of branches is obtained on a bush or standard tree in the open, and the tree is established, say, in the course of four or five years, comparatively little cutting is necessary; as much as possible of the work should be done in summer by removing

Pruning Fruit Trees

superfluous shoots when they are small. The varieties of the Sweet Cherry bear fruit on spurs, and when the branches are formed, fruit spurs form naturally. It may be necessary to shorten some of the side shoots in July and to cut them to within two buds of the base in winter, but, providing those shoots not required to form fresh branches or to furnish further fruit spurs are removed in early summer, while they are still small, there is generally very little cutting to be done in winter. If the trees are neglected in summer, and superfluous branches and shoots are




Fan-trained Cherry tree on wall.

     **Pruning the Cherry**

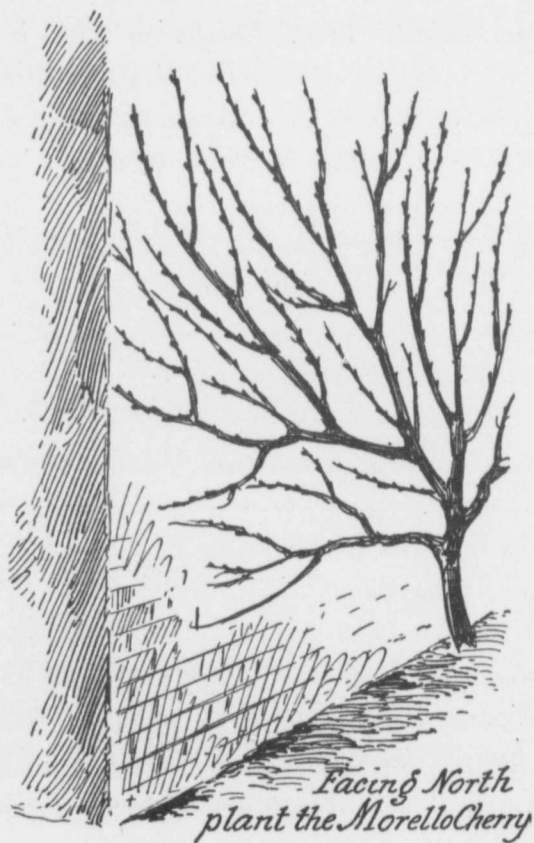
cut out in large numbers in winter, then success cannot be expected, for an attack of gumming is almost certain sooner or later. In dealing with Sweet Cherries grown against a wall a certain amount of summer and winter pruning is essential, otherwise the trees soon become crowded with shoots; but it should be confined, so far as the winter pruning is concerned, to shortening the side shoots. This is really all that is necessary, providing shoots not required are taken off in early summer. The side shoots are cut above the fifth or sixth leaf in June, and in winter are further shortened to within two buds of the base.









Morello Cherry.—The pruning of the Morello differs entirely from that practised in dealing with the Sweet Cherry. The latter bears fruit upon spurs, while the Morello Cherry fruits upon the shoots that formed during the preceding season. Thus the pruning needed is much the same as that required by the Peach and Nectarine. When the crop of fruits is gathered, all shoots that have produced Cherries are cut back to the points at which suitable fresh shoots have developed, and these are trained to the wall or fence to replace them. The Morello Cherry is grown in the form of a fan, the lower branches being trained horizontally, and the remainder rising gradually at

Pruning Fruit Trees



a distance apart of about 4 inches. It is a great mistake to allow the branches to cross each other, for once this happens it is impossible to preserve the characteristic shape of the tree. This ought to be preserved, for pruning is then much simplified, and each branch receives its fair share of light and air. It is advisable, as in the case

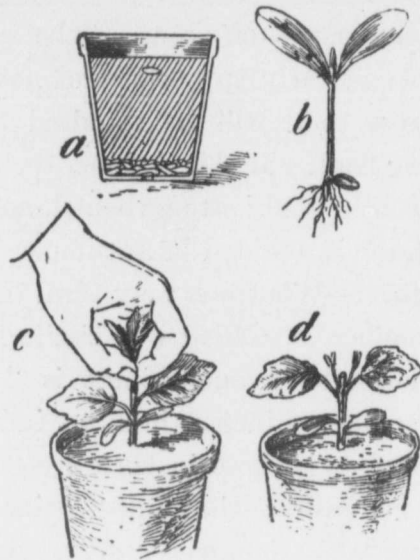


        **The Cucumber**

of the Peach, to rub off some of the superfluous young shoots in early summer, and not to allow more to grow than will be required to replace those bearing fruit. If this is done, the remaining shoots are considerably strengthened, and the free use of the knife is avoided in autumn.

Cucumber.—What one may term the pruning of the Cucumber is carried out similarly to that of the Melon. The young plant is “stopped” when it is about 6 inches high to induce other shoots to develop; these in turn are “stopped” and will bear flowers; the same routine is carried out until the trellis is covered with shoots. The Cucumber grows quickly in a warm, moist atmosphere, and the available space is soon covered. So quickly does the plant develop that some of the shoots soon have to be thinned out, otherwise the trellis becomes crowded with foliage. The secret of success in pruning the Cucumber is to cut out old, worn-out shoots, so that their places may be taken by fresh shoots which form freely so long as the plant is in good health. Once the trellis has been covered, the subsequent pruning consists of cutting back old growths that have borne fruit, with the object of encouraging new ones, which will in turn bear fruit. If this matter is attended to, a Cucumber plant will continue

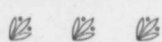
Pruning Fruit Trees



Cucumber seed sown in flower pot (a); seedling (b); pruning or "stopping" the plant (c); side shoots develop (d)

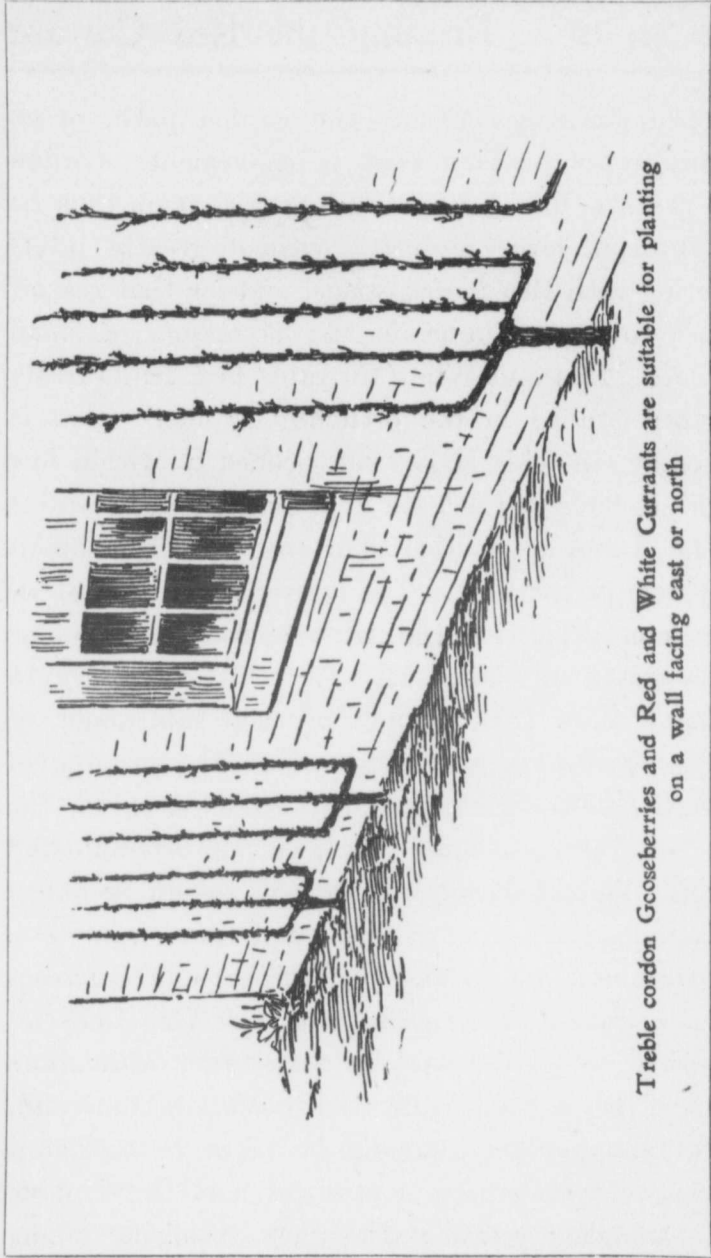
to produce fruit for some months, providing it is well established in suitable soil and that the atmosphere is kept warm and moist. There is no need, as in the case of the Melon, to cross-pollinate the flowers; all the male blooms should be removed.

Red and White Currants.—These delicious and useful fruits may be grown either as bushes or as cordons. In the form of bushes they must have a place in the open garden; as cordons they may be planted against a wall or fence facing east, west, or north, or against a trellis in the




Pruning the Red Currant

open garden, alongside the garden path, or in any other position that is convenient. Cordon Currants, like Cordon Gooseberries, can thus be grown in large numbers without greatly interfering with the garden space, and for that reason are to be recommended to possessors of small plots. Red and White Currants bear fruits freely when pruned in the orthodox manner; that is to say, the side shoots are pruned to within five or six buds of the base in summer, and in winter the shoots are further shortened to within about $\frac{1}{2}$ inch of the base. The winter pruning must be severe, otherwise the fruit spurs soon become elongated and unwieldy; it is not necessary to leave more than $\frac{1}{2}$ inch of each side shoot of the previous summer's growth. The pruning of cordons is very conveniently attended to, for the shoots are so easily reached. In pruning Red and White Currant bushes care should be taken to keep the main branches well apart from each other, and not to allow the centre of the bushes to become full of useless shoots. Those not required to furnish the branches with fruit spurs must be cut out. As the bushes become old, every opportunity should be taken to replace a worn-out branch by a new one, and this is done by allowing a few of the most promising young



Treble cordon Gooseberries and Red and White Currants are suitable for planting on a wall facing east or north

 **Pruning the Black Currant**

shoots to develop instead of summer pruning them; then, in winter, the old branches can be cut out to the points at which the fresh ones originated. White Currants are pruned in the same way as Red Currants. Birds often damage the buds in winter and spring, and similar measures of protection to those advised in the notes dealing with the Gooseberry must be taken.

Black Currant.—The fruits of the Black Currant are produced in a different manner from those of Red and White Currants, and the method of pruning, therefore, is not the same. The Black Currant can only be grown in bush form, not as a cordon or standard. The fruits are produced by the shoots or branches of the previous summer's growth, and the method of pruning consists in cutting out old branches to make way for new ones. This cannot be carried out so thoroughly as in dealing with the Raspberry, for example, for it often happens that a new shoot originates, not at the base of the old one, but at some distance from the ground; thus the old branch can be cut back only to the point at which the fresh one starts. The time to carry out this work is in autumn or late summer, as soon as convenient after the fruit has been gathered. It is not at all a laborious task, and it is difficult to under-

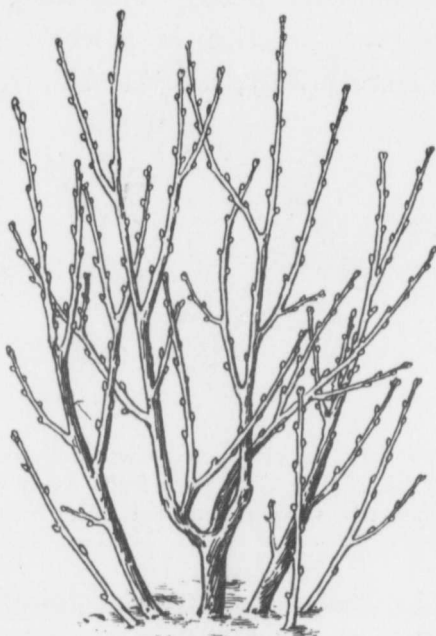
Pruning Fruit Trees

stand why amateur growers of this most useful fruit so neglect their bushes. Many are scarcely ever pruned, with the result that they become full of weakly shoots which have no chance of bearing a full crop. Moreover, a bush which is correctly pruned—the old branches or parts of branches being cut out as young ones become available to replace them—lives much longer in a healthful and fruitful condition than those of which the pruning is neglected. The growth of untended plants becomes weaker with the passing years, until finally they are not worth the room they occupy. Many of them could be rejuvenated by severe pruning, the old branches being cut well back and only young healthy shoots allowed to remain; or, in bad cases, all the branches may be cut back, only a limited number of the fresh ones being allowed to develop.

Gooseberry.—Although the Gooseberry is most commonly grown as a bush, it also thrives excellently as a cordon with one or more stems, a form in which it is strongly to be recommended to amateurs. Cordons take up little room, laterally, in comparison with the space occupied by a Gooseberry bush, and the pruning is far more easily and conveniently attended to. In fact, the pruning of the Gooseberry bush is such a

✂ ✂ ✂ ✂ Pruning the Gooseberry

troublesome matter that many amateurs disregard it altogether ; the result is that the bushes become crowded with shoots which spoil each other, and render even the gathering of the fruit



A typical bush of Black Currant. In pruning cut out old shoots to make room for new ones

a difficult business. When this happens, the fruit obtained is of poor quality, far inferior to that gathered from bushes which are properly attended to. The pruning of cordons is so convenient that it is far more likely to be practised regularly. If

Pruning Fruit Trees

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the pruning of cordons is neglected, the characteristic form of the trees is soon lost, and they, too, develop into ill-shaped bushes. Let us first consider the pruning of cordons ; the principle is the same, whether they possess one, two, or three stems, and the practice is perfectly straightforward. During July, all side shoots must be



Shoot of Gooseberry, showing new growth and fruits on older wood at base. The Gooseberry fruits freely on the previous summer's shoots ; some of these should be left unpruned

“stopped” ; that is to say, the points must be pinched off immediately above the fifth or sixth leaf. This will have the effect of causing other shoots to grow from the uppermost joints of the shoots, and they, too, ought to be treated similarly, as soon as they have made two or three leaves, the point of “stopping” in this case being immediately above the first leaf. If the cordons have already grown sufficiently high, the leading shoot

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is also "stopped" as soon as it has formed five or six leaves, and secondary growths that form subsequently are "stopped" beyond the first



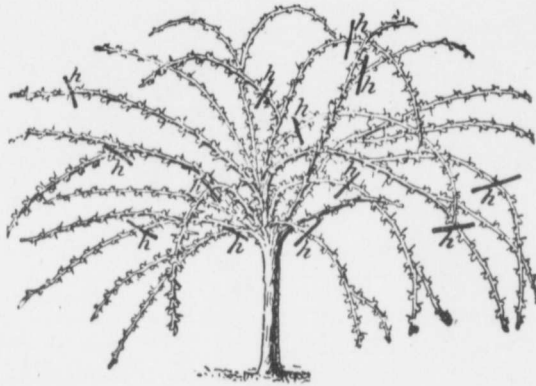
Pruning to form a double cordon Gooseberry. All shoots shown by dotted lines are cut off

leaf. In winter, the shoots that were pruned in summer are further shortened to within one or two buds of the base. If this method of pruning is practised regularly, the cordons will become

Pruning Fruit Trees

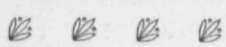
full of fruit spurs at intervals from top to bottom, and bear excellent crops.

The pruning of the bush Gooseberry, if it is to be carried out to the best advantage, is not quite so simple. Although the Gooseberry will bear fruit on spurs, which form freely when the method just described is practised, it is also



Pruning Gooseberry bush of drooping growth. Cut as marked at (h)

true that it fruits well on shoots of the previous summer's growth, and from such shoots the finest fruits in the greatest abundance are obtained. Therefore, when pruning his Gooseberry bushes, the amateur should bear this in mind. When cutting back the side shoots in exactly the same way as advised in the paragraph dealing with cordons, he will find a number of

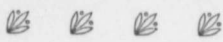
 Pruning the Gooseberry

healthy, promising shoots from 10 to 12 inches long. If room can possibly be found for some of these without unduly crowding the bush, they ought to be left untouched in summer. Let the amateur first "stop" at the fifth or sixth leaf all ordinary side shoots, those 6 inches or so long, then look over the bush again, and leave as many of the stronger shoots as he thinks advisable. In this way he will obtain more and better fruits than if all the shoots were "stopped" in the ordinary way. At the winter pruning the side shoots which were "stopped" in summer are further shortened to within one or two buds of the base, and those that were not summer pruned are shortened by about one-third; that is to say, two-thirds is allowed to remain. It will be found possible, in many cases, to cut out parts of some of the older branches to a point at which the fresh shoots originated. If this method is followed, the Gooseberry bushes will be rejuvenated—old, worn-out parts of branches will be replaced annually by fresh ones. Some growers merely cut out old shoots in January to make room for those of the previous summer's growth. The amateur must certainly keep as many of such shoots as possible.

All branches that are quite close to the ground

Pruning Fruit Trees

should be cut out at the winter pruning, for the fruits on them are certain to be spoilt by soil splashed up during heavy rain. The centre of each bush ought to be kept as open as possible by cutting out shoots which tend to block it up, for the Gooseberry, in common with all other fruit trees, will not bear satisfactory crops unless the buds are exposed to the influence of sunshine and air. Birds often play havoc with Gooseberry buds in winter and early spring. Various methods are adopted to prevent damage. One is to tie up the branches into the shape of a bundle, the tops being secured together by strong string. Another plan is to stretch black cotton between the branches. Pruning is usually deferred until early March, because if the birds destroy the buds on the uppermost parts of the branches it does not matter very much, for it is those on the lower parts that are chiefly of value. It is obvious that if pruning is done early in winter, only the buds of value will be available for the birds, and the bushes will naturally suffer greater damage if these are taken than if only those higher up the shoots are destroyed. The amateur may come to the conclusion that much ado has been made about nothing, for he probably finds that his Gooseberries produce good enough crops with



Pruning Berried Fruits

scant attention. But if he would treat a few of his Gooseberries in the manner described, he would undoubtedly be gratified by the improvement, not only in the quantity of fruits obtained, but by their finer quality and larger size.

Loganberry, Blackberry, and Allied Fruits.—There are many berried fruits grown in gardens nowadays, such, for example, as the Loganberry, Blackberry, Laxtonberry, Lowberry, Phenomenalberry, Hailshamberry, and others, and all need pruning similarly. The fruits are produced by the stems or shoots of the previous summer's growth, and the correct practice is, in late summer, to cut out the stems which have borne fruit; fresh young stems of the current season's growth are fastened to the supports to replace them. Nothing could be simpler than this. It is necessary, in early summer, to limit the number of fresh growths, for there is no object in allowing a greater number to develop than room can be found for on the trellis or fence, or whatever support the plant is trained upon. As a rule, from eight to twelve fresh stems on each plant are sufficient. The number depends upon the size of the plant, and the space to be covered. If the plant is trained on a fence or trellis there ought to be a distance of 8 inches between each

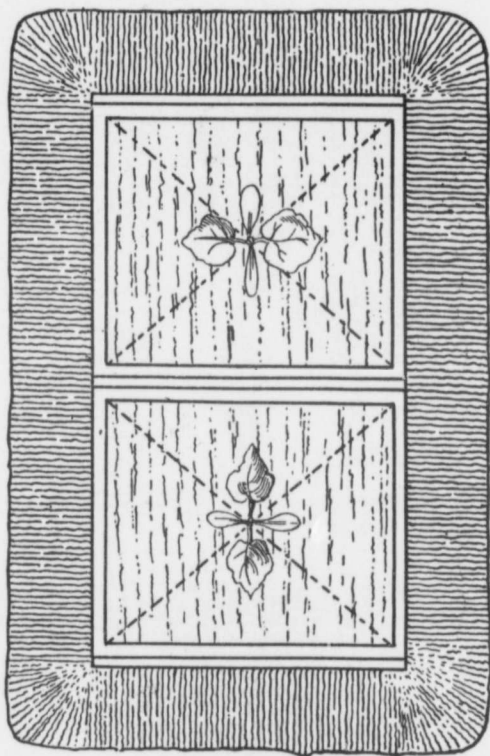
Pruning Fruit Trees

stem or branch. These fruits are particularly valuable because they are extremely easy to grow, and invariably yield a good crop of fruit which is most suitable for preserving. Care must be taken of the young stems while they are developing, and the best plan is to tie them loosely to the support in the position in which they will be fastened finally in autumn. If this is done, it is an easy matter to ascertain exactly how many are required to fill the space at disposal. All those not wanted should be cut out while they are small. Another plan is to select those needed to form the following year's branches, and to tie them loosely to stakes placed at a slight distance away from those now in fruit; this plan is perhaps as good as the other, for it prevents the fresh stems from shading the old ones. Some means must be taken to preserve the fresh shoots from damage, otherwise they are in danger of getting trodden upon, or blown about and broken by the wind. They will bear next year's crop, and must therefore be taken care of.

Melon.—The Melon receives its first pruning when it is about 6 inches high; the point of the plant is then pinched off. The result is that several secondary shoots develop, and these in turn are "stopped," the production of a greater

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number of other shoots being thus induced—say six in all. On these shoots male and female blossoms will be produced, and it is necessary



Melon plants in a frame; the dotted lines show the direction in which the shoots should be trained

to effect cross pollination by taking off the male blossoms, removing the petals, and placing them on the stigmas of the fruit-bearing flowers. It

Pruning Fruit Trees







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is a matter of importance to carry out cross pollination when four or five fruit-bearing flowers



“Pinching” the top of the young Melon plant to induce the formation of side growths

are open at the same time ; if one blossom is pollinated one day, and two or three the next

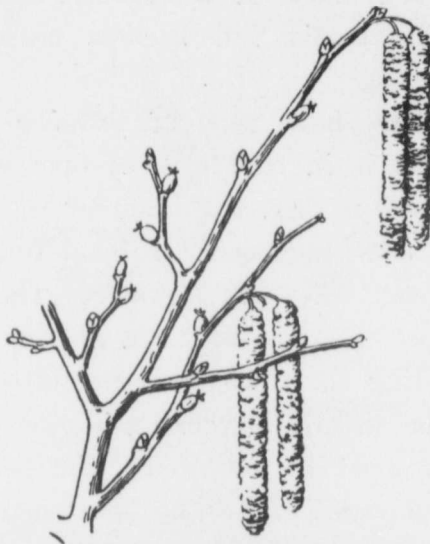
      **Pruning the Nut**

day, the earliest fruit will increase in size rapidly and develop into a first-class specimen, but the remainder will never become very large. As the season progresses numerous secondary shoots will be produced by the Melon plants, and unless they are "stopped" as soon as one or two leaves have formed, the trellis will become crowded with useless growth.

Nut.—The best way of growing Cob and Filbert nuts is in the form of open-centred or goblet-shaped bushes, the branches of which are well apart from each other, so that sunshine and air may reach all parts of them. There should be not more than eight or ten branches to each bush. During the first few years after planting the practice already advocated in pruning young fruit trees must be followed; the branches of the previous year's growth are shortened by about half, in order to produce sturdy bushes; the pruning must always be to an outside bud, then the centre of the bush will be kept open. The male and female flowers of the Nut are borne separately, the former are in the form of catkins, the latter are small and crimson, and are easily seen. When the female flowers have faded the catkins may be cut off. It is an advantage to shake the pollen of the catkins over the small

Pruning Fruit Trees

crimson blossoms when these are out, as fertilisation is then assisted. Summer and winter pruning are practised in the way already described, the side shoots being shortened in summer and again pruned in winter. As the bushes grow, oppor-



Showing the catkins (male flowers) and the small crimson female flowers of the Nut

tunity should be taken to renew any worn-out branches or parts of branches by allowing promising young shoots to develop, the old ones in due course being cut out to make room for them. It is important to keep the branches limited in number and thinly disposed, and this is accom-

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plished by cutting out those shoots that are not required instead of cutting them back.

Quince.—This old-fashioned tree needs practically no pruning except that which is given by



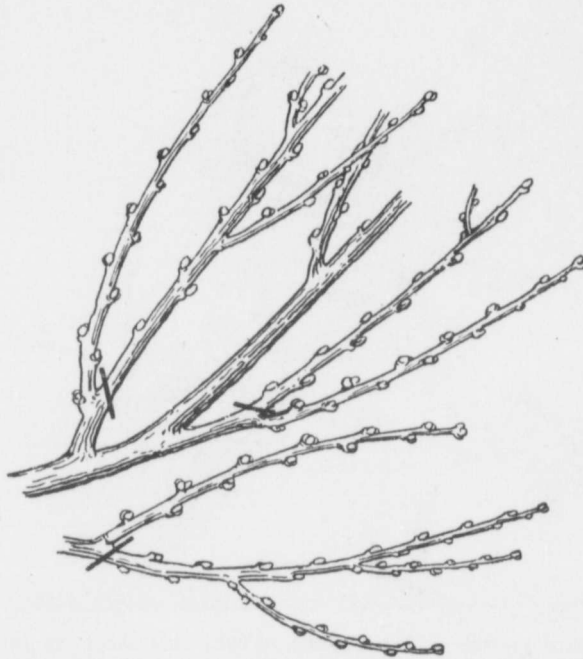
Typical growth of the Quince. Prune side shoots in July as shown by the line, and in winter again shorten them

thinning out superfluous shoots to prevent the tree from becoming crowded. Keep the branches well apart from each other by summer and winter pruning the side shoots if necessary, and by cutting out those not required.

Pruning Fruit Trees

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Peach and Nectarine.—The pruning of these delicious fruits is simple enough, but the work needs to be done with care. The chief thing to bear in mind is that the fruits are produced on



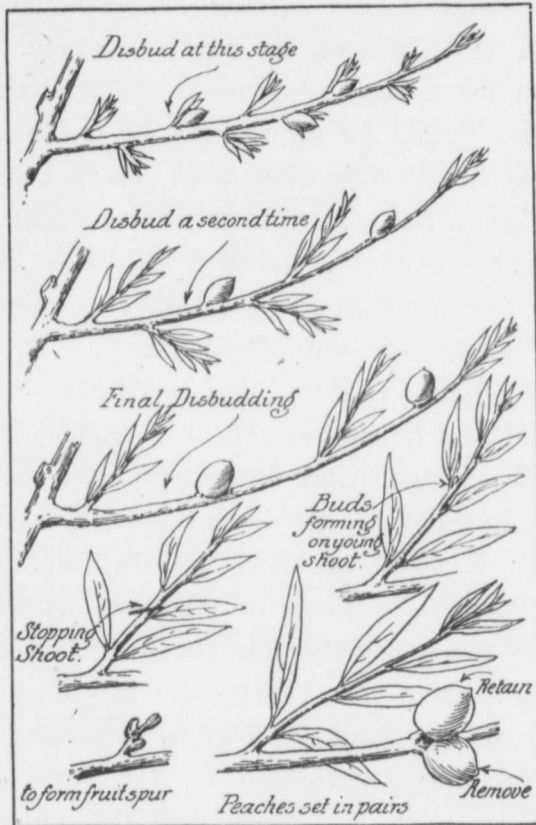
In autumn the shoots of the Peach which have borne fruit are cut out, and the new shoots are trained to the wall to replace them

the shoots of the previous summer ; that is to say, the shoots which grow this year will bear fruits next year. There are two distinct “ operations ” in the pruning of a Peach or Nectarine



Pruning the Peach

tree. The first is the removal of superfluous shoots in early summer, known as disbudding, and the second is the pruning proper which should take



Disbudding and summer pruning the Peach

place as soon as the fruits are gathered. Both are important. There is just this to be said about the pruning of Peach and Nectarine—if it

Pruning Fruit Trees

is neglected, the trees are soon spoilt ; to keep the trees in good health, disbudding and pruning must be attended to as the seasons for the work come round. Before giving an explanation of disbudding let us consider why it is done. There is room for a certain number of branches only, and they ought to be trained in the shape of a fan at about 5 inches apart, the lowest ones being horizontal. In spring a large number of young shoots appear, and if all were allowed to develop, there would be a thicket of stems and leaves before the summer was over.

The object of disbudding is to remove those which are not wanted, thus strengthening the remainder, which will bear fruit the following year. On each of last year's shoots, when disbudding is finished, there should remain only two, or possibly three, of the fresh shoots—all the rest are removed while they are small. One of them must be near the base of the older shoot, one at the top, and, if there is a vacant space, another young growth may be left to fill it. As a rule, however, two fresh growths on each of the older shoots or branches are sufficient. Disbudding must not be done on one occasion ; it should be done at three different times at intervals of about ten days. Begin to remove superfluous



Pruning the Peach

shoots when they are an inch or so long. First take off those that are behind and on the front of the branches; the latter, if allowed to remain, will grow out towards the front of the tree, and are difficult to train alongside the others. Then remove all very small ones which are obviously useless. But all the time take care not to disturb those which are to remain and form next year's fruiting branches. The work is not so complicated as a description makes it appear to be. It resolves itself merely into deciding which two or three shoots are to be left, and removing all others gradually. As those which are left develop, and they grow quickly as summer progresses, they must be tied loosely to the branches which they will replace so that they can be trained in the required direction. In early autumn or late summer, as soon as the crop is gathered, the branches which have borne fruit are cut out to where the new shoots arise which are to replace them; the latter are then nailed to the wall or tied to the trellis. Here and there a few shoots may be "stopped" to form spurs, as illustrated on page 59, providing that space is available for them.

Pear.—The pruning of the Pear offers no difficulty at all, for it bears fruit freely on spurs.

Pruning Fruit Trees

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Fruit spur of the Pear tree as seen in summer: this requires no pruning

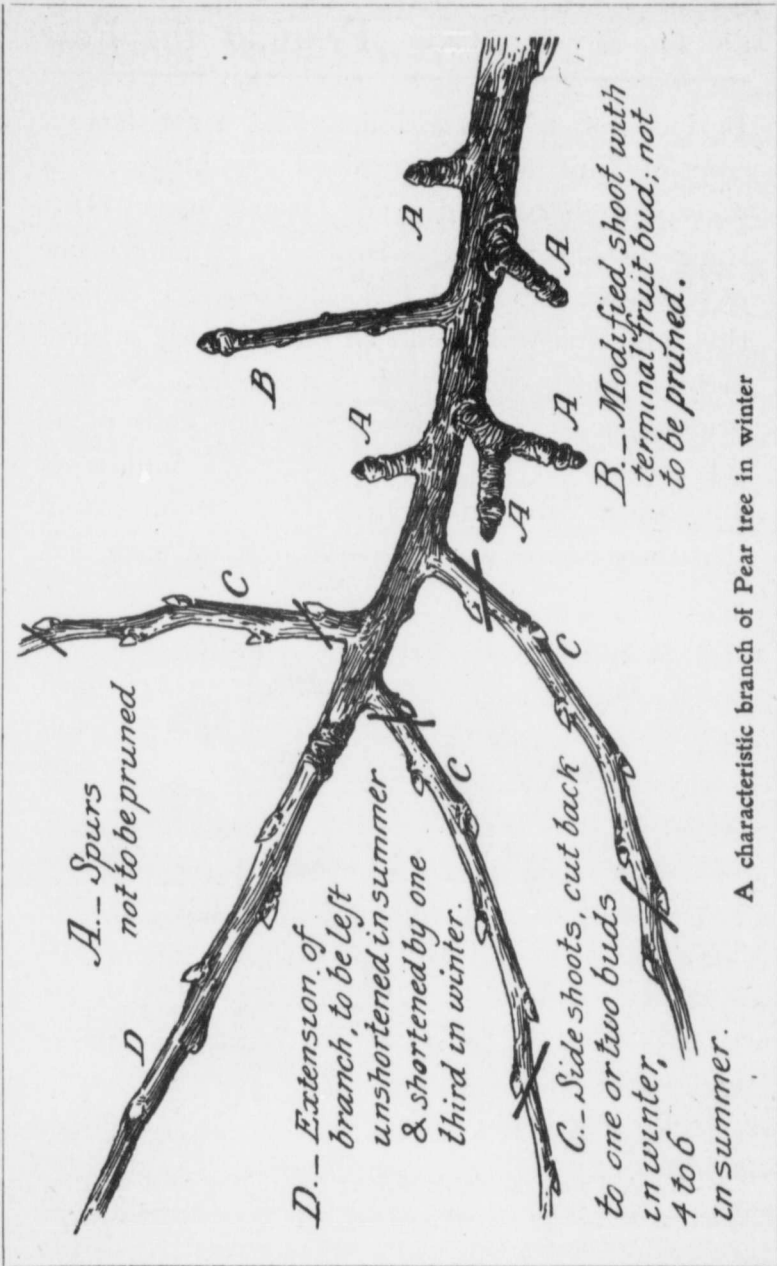
One may see old Pear trees, each branch covered from end to end with spurs which burst into a mass of blossom in spring, and fruit excellently. But this is the case only when the branches are well apart; they ought not to be closer than 18 inches. Then air and sunshine, which play such an important part in inducing fertility in fruit trees, have full access to the buds, with the result that these develop and mature properly. Providing, then, that the branches of your Pear trees are disposed at the proper distance apart, and that the fruit spurs are not crowded, each one being, say, 6 inches from the next one, all that remains to be done is to carry out the orthodox pruning in summer and in winter.

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



It does not, of course, follow that a satisfactory crop of fruit will be obtained regularly, for a successful harvest depends upon many other things besides pruning. However, pruning is one of the most important tasks in fruit-tree cultivation, and unless it is carried out properly a satisfactory issue cannot be hoped for. Summer pruning consists in pinching off the ends of all side shoots in the period from the middle of July until early in August, to such an extent that only five or six leaves are left on each one.



Typical summer shoots of Pear tree. The small ones should be cut out and the large ones shortened to within five leaves of the base



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      **Pruning the Pear**

That is a perfectly simple proceeding, which the veriest tyro can understand.

At the winter pruning, which is carried out at any time in winter after the leaves have fallen, preferably in January, the side shoots are further shortened to within one or two buds of the base—to one, if a good, prominent bud is seen; to two, if not. Then short, stunted, woody shoots are formed upon which, in due course, fruit buds will develop. Such shoots are called fruit spurs. Until the tree has filled the space allotted to it, if on a wall or trellis, or has grown large enough if in the open garden, the shoots that extend the branches are not “stopped” at the summer pruning, but in winter are shortened by two-thirds; that is to say, they are cut back so that only one-third is left. This must be done, otherwise the buds towards the base of the branch will not start into growth, consequently no side shoots will develop there, and, as a result, there will be no fruit spurs on that portion of the branch. At the winter pruning, care should be taken to cut out all shoots for which there is no room, which tend to block up the centre of the tree, or to cross over and crowd other branches. Give each branch proper room, then, if pruning is carried out as directed, fruit spurs will form

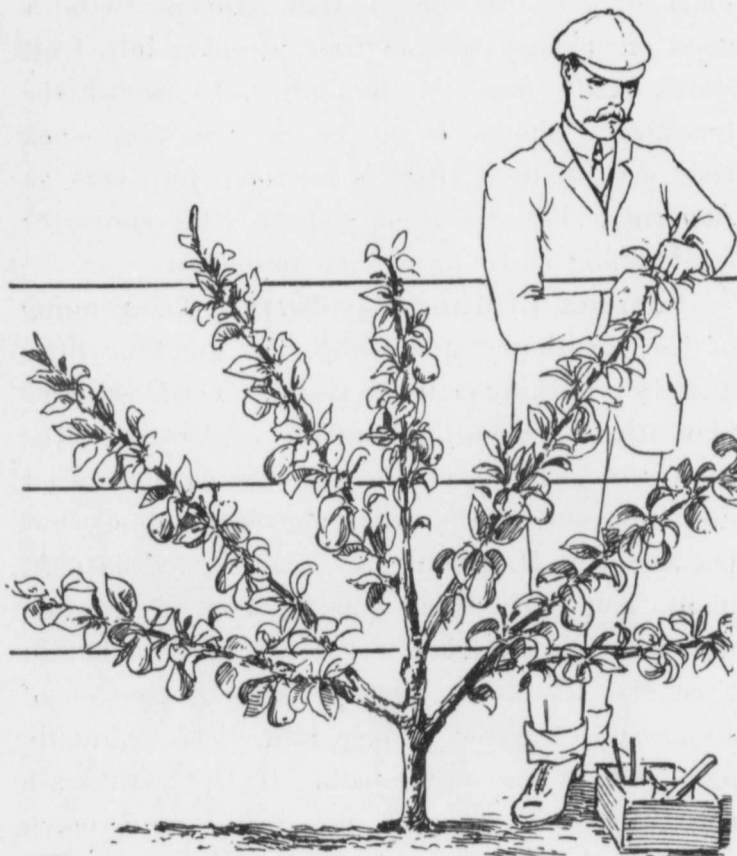
Pruning Fruit Trees

and in due course bear blossom and yield a crop. Young Pear trees generally grow very vigorously during the first three or four years after being planted, and all such, except standards, should be lifted or root pruned, as described on page 17.

Plum.—This tree bears fruit on spurs and upon young shoots of the previous year's growth, therefore the pruning needs somewhat more consideration than, for example, when dealing with the Pear. During the first few years of its life, the Plum is very liable to make excessively vigorous growth, and lifting or root pruning must be practised. If the branches alone are pruned, others, still stronger, will be produced, and the tree will be long before it reaches a fruitful state. When once it has become properly established, and produces shoots of moderate vigour, then the ordinary methods of pruning can be practised with advantage. The side shoots on the branches are summer pruned by being stopped just above the fifth or sixth leaf, but care should be taken to preserve some of the most promising shoots, unshortened. If it is necessary, parts of older branches can be cut out in winter to make room for them. Plum trees on a wall need to be carefully trained as well as pruned. During summer it is easy to see whether or not there is room for

Pruning the Plum

a fresh shoot here and there ; if there is, then care should be taken of those conveniently situated



Pear tree Fan trained on trellis or wires.

for filling the space, or for replacing any that are worn out. They are left unpruned in summer and in winter are shortened by about one-third.

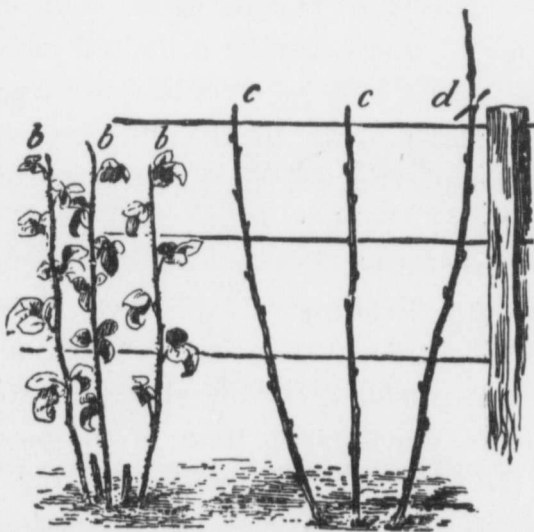
Pruning Fruit Trees

At that season side shoots that were shortened in summer are further pruned to within two buds, or even one bud if that happens to be a good one; they will, in time, develop into fruit spurs. Care must be taken not to crowd the branches; shoots ought to be removed when they are small, if there is no room for them as shortened side shoots or embryo fruit spurs, or for training in to form fresh branches.

Summer Fruiting Raspberry.—The pruning of the Raspberry need cause the amateur little anxiety; nothing could be easier. Yet Raspberry plantations are very commonly neglected in the matter of pruning, not because the garden owner does not understand what should be done, but because the Raspberry is a very good-natured plant, and gives fairly good returns even when not properly attended to. The result is that in time the Raspberry plot becomes a thicket of stems, which grow weaker and yield gradually less fruit as the years pass. If the plants are cared for—and they do not really need much attention in the way of pruning—they will last in health and productiveness for many years. Everyone knows that the best fruits are produced by the stems of the previous year's growth; therefore, as many of these as are required ought



Raspberry clump, the stems supported by a stake. In winter prune the stems to varying lengths as shown, to obtain fruit from top to bottom



Raspberries: grown against wire trellis; the fresh stems (b) replace old ones which have been cut out. Shorten tops of canes (d) as seen at (c)

Pruning Fruit Trees

to be allowed to develop during the summer, so that in autumn they may take the place of those which, having borne fruit, are then cut out. It is sufficient to leave six fresh shoots at each Raspberry root; all others ought to be pulled up while they are small, in early summer. Those left will then have every opportunity of developing strongly, and will bear a good crop the following season. When the fruits have been gathered, the stems from which they were taken should be cut out, the fresh stems then being tied to the supports to replace them. Cut out the old stems to make way for a limited number of new ones; that is the secret of Raspberry pruning. These remarks apply to the ordinary summer fruiting Raspberries which are ripe in midsummer. The autumn fruiting Raspberries need quite different treatment.

Autumn Fruiting Raspberry.—This kind bears fruit in September and October, and the berries are produced by the shoots or stems of the current year, not by those of the past year, as in the case of the summer fruiting kinds. Pruning in this case is carried out in early spring, in February, the old stems then being cut down to within 3 or 4 inches of the ground. The result is that fresh shoots will develop strongly, and

▯ ▯ ▯ ▯ ▯ ▯ ▯ The Tomato

towards the end of the summer will bear fruit. The number of stems allowed to grow must be limited as in the case of summer fruiting Rasp-



All side shoots (*r*) should be removed from Tomato Plants

berries, not more than half a dozen being allowed to remain on each plant.

Tomato.—Very little pruning is required in the cultivation of the Tomato, but a few notes

Pruning Fruit Trees

on this favourite fruit may be useful. Pruning is perhaps scarcely the correct term to use in connection with plants of soft growth, such, for example, as the Tomato, Cucumber, and Melon, but it is sufficiently accurate for the purpose. It is usual to restrict Tomatoes to one stem, though occasionally the plants are allowed to form two or more stems. That does not, however, affect the chief point in pruning, which is to remove the side shoots that develop in the axils of the leaves; all these ought to be rubbed out while they are small. Further, it is advisable to pinch off the top of the plant when three or four bunches of fruit have formed; this is especially necessary in Tomato growing out of doors, because it hastens the development and ripening of the fruit, and in a comparatively sunless summer that is a point of importance.

Vine.—The Grape Vine is one of the simplest of all fruits to manage, so far as its pruning is concerned, but the average amateur rarely masters the process, though why he should be unable to do so is a matter for surprise. The grapes are produced by the fresh green shoots of the current year, usually at a point on the shoot between the second and third, or the third and fourth leaves. Let us suppose that the crop of grapes



Pruning the Vine in winter: all the side branches are cut to within one or two buds of the base

Pruning Fruit Trees

❖ ❖ ❖ ❖ ❖



Showing how severely the side shoots are pruned in winter

has been cut, and consider the appearance of the Vine in autumn when all the leaves have fallen. It consists of a central stem upon which, at intervals of 15 inches or so, are the matured and browned shoots that have produced grapes. They are 12 inches or perhaps rather more in length. Autumn pruning consists in shortening these side shoots by half. There is nothing more to be done until early spring; January is a suitable month for pruning Vines in an unheated or only slightly heated greenhouse. At that time the side shoots are further shortened; they must be



In tying the young Vine shoots to the trellis in spring, draw them down gradually, at intervals of a few days, or they will break off

✂ ✂ ✂ ✂ ✂ ✂ Pruning the Vine

cut back to within from $\frac{1}{2}$ to 1 inch of the point from which they started to grow the preceding season. If one sound, hard, and prominent bud is seen, the shoot should be pruned just above this bud; if, however, no such bud is seen, and the amateur is rather doubtful as to whether to









The summer pruning of the Vine: the shoots should be "stopped" at two leaves beyond the bunch

leave one or two buds, let him cut so that two buds are left. As the spring progresses, the buds will produce shoots on some of which, in the course of a few weeks, miniature bunches of grapes can be seen. If two buds were left on each of last year's side shoots, only one of them must be allowed to develop; that which bears a bunch is naturally chosen, and the other is removed.

Pruning Fruit Trees

Thus we have a green shoot growing from the base of each of the shortened side shoots of last year. As they increase in length they must be tied down to the trellis very gently, or they will break off; if they are allowed to reach the roof glass, it is likely that they will be spoilt. When the bunch is prominent, and the shoot has produced two leaves beyond the bunch, its point is pinched out; other secondary shoots will form, but these must be "stopped" when one leaf has developed. It is important to pinch off the end of the side shoot at two leaves beyond the bunch, or, if it bears no bunch, when four or five leaves have formed, and to "stop" all other smaller shoots; otherwise the trellis becomes covered with a mass of growths that retain a lot of moisture and may help to give rise to an attack of mildew. That is all there is in pruning the Vine.

The following season the same routine is practised; in autumn the side shoots, or laterals, as they are called, are shortened by half, and in January they are further cut back to within one or two buds of the point from which they started to grow the previous season. If this practice is followed, stunted, even gnarled, spurs will form where the side shoots are cut back annually, and the Vine can be kept within limits

      **Pruning the Vine**

for many years. If, however, this annual pruning is neglected, the trellis will soon be covered with long, weak growth, bare for the greater part of its length, the Vine will lose in vigour, and the grapes will be small, of poor quality, and will not ripen properly. The amateur usually goes wrong in dealing with the Vine during the first few years following planting.

The Vine is usually planted in October, and in the January following it is cut back to within about 2 feet of the base. The uppermost shoot is allowed to grow during the summer, until it has reached a height of 6 feet, its point then being pinched out. All other buds are removed, for side shoots are not wanted below the trellis. It will thus be seen that no fruit ought to be taken from a Vine during the first season. The following January (the second season after planting) the stem is cut back to within 2 feet or so of the point at which it started to grow the previous spring. The uppermost shoot is again allowed to develop until it is 6 feet long, then being "stopped," while a few of the other buds will grow and form side shoots on which bunches of grapes will appear. These side shoots should be about 15 inches apart; and those on one side should alternate with those on the other. During the second season after plant-

Pruning Fruit Trees

ing it will be possible to allow three or four side shoots to grow ; the following year two, three, or four more, and so on, until the top of the vinery is reached. As fresh side shoots form and bear grapes, they are treated in the manner already advised, that is to say, they are "stopped" in summer, and in the following spring they are pruned hard back to one or two buds.

Walnut.—The Walnut is commonly grown as a standard, and the little pruning that is required is limited to cutting back the branches during the first few years of the life of the tree, taking care to shorten them by about half each winter until sufficient have formed, and to keep them well apart from each other. In later years the only pruning required is to thin out shoots which tend to block up the tree, for it is necessary that the branches be kept quite free from each other.

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