

to be most beneficial. Many years ago it was only had recourse to to bring strong and barren growers into a bearing state, and when properly performed, rarely failed in producing the desired effect. When full-sized, grown-up trees, that have never been root pruned, require it, great care must be taken, and the operation performed by degrees, so much one year and so much the next, until the whole be completed. As I have already stated, root pruning, in all cases must be carefully performed, and at the proper time, that is soon after the fruit is gathered. For young trees cut a trench, say eighteen inches or two feet from the stem of the tree, examine the roots carefully, and those inclined to perpendicular growth downwards cut them by the spade, making sure that none escape amputation; all the horizontal roots should be cut or shortened by a knife, eighteen inches or two feet from the stem, and the trench again filled up with a prepared compost of good turf and rotten dung, of equal parts, well tramped down, then mulch all over the space above the roots and around the tree with good stable yard manure. Some practice annual root pruning, others biennial. Many prefer doing the one half of the root the one year and the other half the next: this I do, and am satisfied it will be found sufficient in most cases.

**TRAINING.**—There are various forms in which the fruit tree is trained, on walls, espaliers, &c.; some horizontally, others wavy, or curvilinear, oblique, fan, stellate, and pendulous, also pyramidal and bush form, for the open garden and orchard, to which my attention in the meantime is principally directed. It is necessary to remark that all varieties, either of the pear, the apple, or other kinds of fruit, are not all eligible alike for pyramids and bushes, as they are termed. Pears and all other kinds of fruit trees differ greatly in their habits and growth. Some incline to grow compact and neat, others horizontally or bushy, and some very thin and slender. Whatever the fancy may be as to the shape that the tree is to be trained, the varieties best suited should be selected; those of compact, erect habit are the best for pyramids; the horizontal growers, or those of a crooked nature, for bushes; the thin and slender growers, of whatever shape they are to be or may be made, require to be well attended to when young, as they are all with few exceptions apt to be furnished with dormant buds on the lower part of the branches; this, by early short pinching may be greatly obviated. It is very desirable to have all trees that are purposed to be of small stature on dwarf stocks—the pear on the quince, the apple on the English crab and Paradise stock, the plum on the sloe, the morella and duke cherries on the mahaleb, the bigarreau and heart cherries on the common cherry stock. The pear, the apple, the cherry, and all of the other varieties mentioned, are well adapted for dwarf culture, which has been admitted, by all who have practised it extensively, to be the most interest-

ing, the most profitable, and the best. The plum in a rich soil rapidly forms a pyramid; it can scarcely be managed by summer pinching, as it is of such a rapid growth. It is however a tree whose roots keep near the surface, and can easily be kept down by annual or biennial root pruning, whichever may be adopted. Cut all the roots, as has already been directed, and as the tree advances and years roll on, every time the roots are pruned cut within a few inches of the former stump. Some cultivators approve of removing the trees annually, if the soil be rich; biennially, and adding some rich composts, if it be poor. This is to be done without root pruning, commencing the second year after planting, performing the operation in the end of October or the beginning of November, as the tree may be found in condition. Lift them carefully, preserving all the roots unless any stragglers, then make the hole, from whence the tree was moved, a little deeper and of sufficient breadth to receive the roots at full length; place a little of a prepared compost of loam and rotten dung in the bottom, then place the tree in the centre and carefully spread out all the roots and cover them over with a little of the compost; when that is done fill in the common earth and tread it down firmly with the foot, then mulch all over as before directed.

Summer pinching, to which reference has been made in the previous remarks, is an essential operation, and, as it may not be understood by all, I shall here shortly notice the time and manner of performing it. It is done by the finger and thumb, and by a timely use of them the tree may in a great measure be summer pruned. In exemplifying this operation I shall endeavour to be as plain and clear as possible, using for my subject a young pear tree of one year from the bud or graft, say for a pyramid. A good, well rooted plant, with a single upright stem well furnished with buds, is selected. The first spring head it down to within eighteen inches of the ground; if the soil be rich it will produce five, six, or more shoots, one of which is to be made the leader, and if not quite erect it must be made so by fastening it to a stake, and as soon as the leading shoot is ten or eleven inches long stop it by pinching off its end; if it pushes forth again two or more shoots pinch all off but one to three leaves, leaving the topmost for a leader. The side shoots in general assume a regular form, should they not do so stake them into it, taking care not to have them too close; they may thus remain until the end of August or the beginning of September, when they may be shortened to eight, ten or more buds, as may be found necessary to the formation of the tree. The second year the tree will make strong vigorous growth; the side shoots that were stopped last fall will push out three, four, or more shoots. In June, or as soon as they have made four or five leaves, pinch them off to three leaves, leaving the leading shoots of the side branches unpinched, to extract the superabundant sap till