Training

TRAINING is very much better understood in France than in the British Isles (or in America). In France the commonest laborers frequently possess a knowledge of pruning and conducting a tree, which we might look in vain for anywhere in this country; and by way of illustrating their skill in this way, we cannot do better than examine their means of forming two of the most popular forms of fruit trees—the Palmette Verrier and the Pyramidal Pear trees—chiefly after Du Breuil. The Pear will serve to illustrate training and pruning as well as any other tree, or better, and the principles laid down will apply equally to other fruit trees.

THE PALMETTE VERRIER. Wherever large wall trees are grown, the simple and beautiful form known to the French as the Palmette Verrier is sure to obtain a place among them. It is indeed the finest of all large forms, and is preferred by many of the best French cultivators to any other. They use it for other trees besides the Pear; and by far the finest Peach tree I have ever seen was trained after this method near Lyons. The English reader may think it impossible to attain such perfect shape as is shown in the accompanying picture, and such perfect equalization of sap as it suggests; but I have seen several trees even more beautifully finished than the one represented. Figure one also shows the advantages of the kind of support used in France for espalier trees as compared with our own ugly method of using rough wooden and iron posts and strong bolt-like expensive wire. It will be seen that the tree differs radically from the usual form of Pear tree that we are in the habit of placing against walls, and it is easy to point out its advantages in securing an equal flow of sap to all the branches.

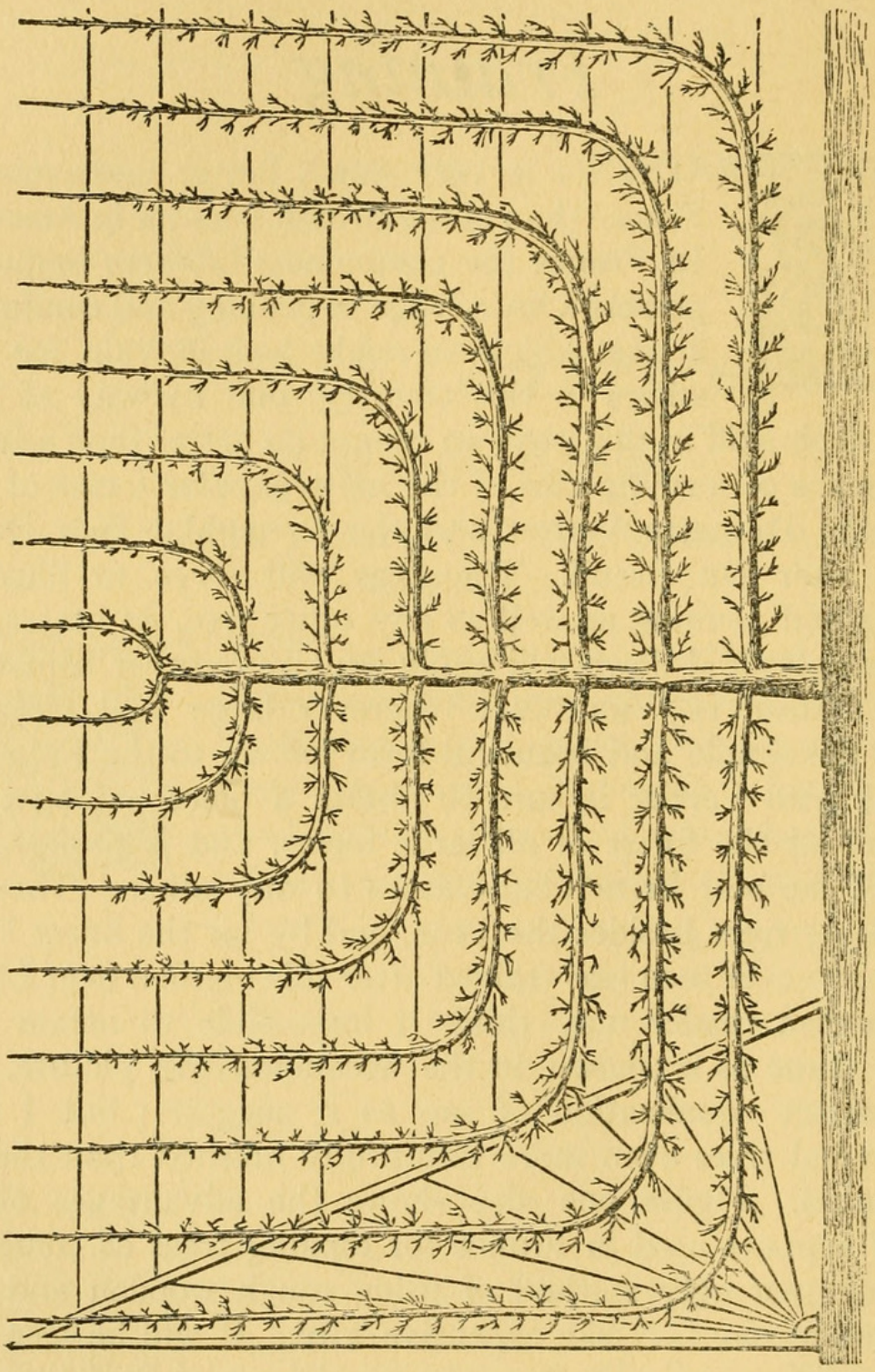

FIG. 1. PEAR TREE TRAINED AS "PALMETTE VERRIER"

In the common horizontal form strength and fertility are apt to desert the lower branches, in consequence of their not possessing a growing point to draw the sap through, and particularly when constant care is not taken to repress, by summer pinching, the upper portion of the tree. The forms here figured, in common with all very large wall and espalier trees, takes a long time to complete. Given a wall 10 ft. or 12 ft. high, and 20 ft. or 24 ft. long, to be covered with a tree of this shape, it would require fifteen or sixteen years to form it. By adopting a more contracted form based upon the same plan, we may cover the wall or trellis more quickly.

The Palmette Verrier* is named after the fruit gardener at the École Régionale de la Saulsaie, with whom it was first observed. To form the tree, we have in the first instance to plant an ordinary young plant of a desired kind, and of course that should be of the primest kind, both as to quality and constitution, as so much care is about to be exercised to make it a handsome and long-lived ornament to the garden and valuable aid to the fruit room. In forming this as all other

* In my own garden at Armsea Hall, Newport, I have a very good example of the iron trellis described here by Mr. Robinson, which is equally useful for fruit or flowers.

Some years ago while I was in Nice, France, I had about three hundred feet of just such a one made by M. Pin, the ironmonger, and sent over to Newport—the only difference being that it arched over the top and was used to form a covered walk, and for Dorothy Perkins roses, not fruit—but the system of training is precisely the same. In September and October the long new growth of the summer is trained over the trellis and the old or superfluous canes are cut away. After the work is finished the fan-like appearance of each section is precisely similar to Mr. Robinson's illustration. Each branch must be tied to the wire by raffia and of course this takes long, but there is no more delightful occupation than this in the month of September;—to work at an established, beautiful and artistic piece of gardening. It is like doing embroidery—only one's worsteds are living branches.

My Rose Walk has now doubled in size, as I had our local workman copy exactly M. Pin's trellis. It takes at least ten days to accomplish the training, but when the roses are in bloom from July 27 (as that is almost the date to a day that they begin blooming each year) to the middle of August, they are a wonderful picture which people come from far and near to admire. It has now been in existence for over ten years and the training that is given it is *con amore*. So I can recommend these trellises equally for fruit or flowers, and as divisions in a kitchen garden they are charming as cordons of fruit, or as a background to tall perennial Asters, *Boltonia*, *Helianthus* and Marigold, to hide the vegetables in their declining stages.—Z. K. H.

trees, the usual and most economical custom is to choose plants about a year old from the time of grafting, or what are usually called "maiden plants," and which when planted are cut down to within about a foot of the surface of the soil. Three well placed buds are allowed to remain and form three shoots. The two side ones go to form the lowest and longest branches of this handsome form of tree, and at the second pruning the young trees would have somewhat the appearance of that stage in Fig. 2. It is quite easy to buy trees a little more advanced to make the same form more quickly; but they will be more expensive the further they are advanced beyond what is called the "maiden" stage. The young trees should be allowed to remain a year or so in their positions before being cut, so that

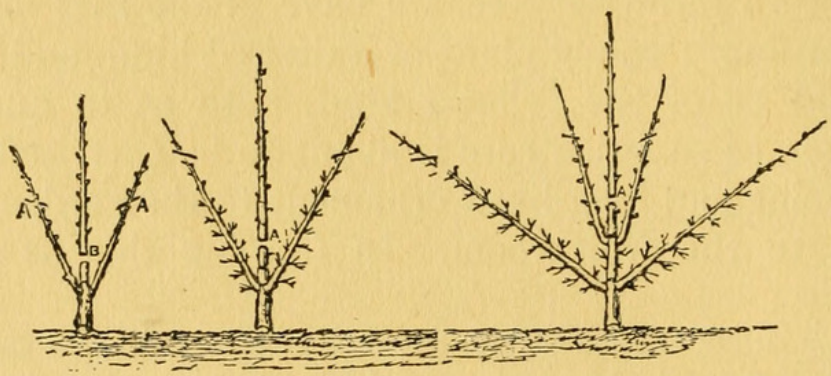

FIG. 2. THE PALMETTE VERRIER
SECOND PRUNING THIRD PRUNING FOURTH PRUNING

they may have rooted well. At the first pruning the young tree is cut down to within a foot or so of the ground, and just above three suitable eyes, one at each side to form the two lowermost branches, the other a little above them and in front to continue the erect axis. Of course all the eyes, except those that are to send forth the three first shoots, must be suppressed in spring. Now, although the tree in the picture looks so very exact and regular in its lines, and the branches appear as they had been "bent in the way they should go" at a very early stage, it is not so; they are at first allowed to grow almost erect, and are afterwards gradually lowered to the horizontal position. During the first year of the young tree possessing three shoots, care must be taken (as at all times) to secure a perfect

equilibrium between them. If one grows stronger than the others, it must be loosened from its position on the wall and lowered. This will divert the sap so as to strengthen the rest. Nothing is more easily conducted than the sap when we pay a little attention to it; if not, it soon rushes towards the higher points, and spoils the symmetry of the tree.

We then, at the second pruning, have to cut them at B, and also cut off about a third of the length of the side shoots, as at A A, Fig. 2 "second pruning." If one side branch happens to be stronger than the other, cut the stronger one somewhat shorter. In cutting and pruning wall trees the cut should be made above a front bud, so that the wound made by the knife may be turned towards the wall, and away from the eye, from which, of course, it soon will be effectually hidden by this front bud pushing into a shoot, and thickening at its base. During the second year no more branches must be permitted to grow, simply because the trainer desires to throw all the strength he can into the lower branches, which are to be the longest. Sometimes, however, the strength of the lower branches will permit the second stage of branches to be made during the second year of training. At the third pruning the trees will present somewhat the appearance of Fig. 2, the central stem being cut at six inches or so above the previous incision, which is indicated by a slight ring, and a third part of the new growth of the side branches cut off, as shown on the side branches. Here, again, we cut above and inside of three promising eyes to obtain a new set of branches, and each succeeding year add another series until the tree is formed. The right hand sketch of Fig. 2 represents the aspect of the young tree at the fourth pruning. At the end of the following growing season the specimen will have grown sufficiently to allow the lower branches to be turned up towards the top of the wall, and begin to look shapely. Fig. 3 is an exact representation of what it ought to be at that stage—A, and the cross marks indicating where the cuttings are to be made. Above all things is it necessary to keep the growth and flow of sap equal, not only for the sake of symmetry, but also to insure perfect health and fertility; for if one par- be

allowed to grow grossly at the expense of another, an awkward state of things will soon take place. Sometimes, when the vegetation is very vigorous, time is gained in the making of this form by pinching the central growth at eight inches or so above the highest pair of opposite branches. It then breaks again, and care is taken to secure two side shoots and one erect one. Thus, with care, and in good soil, two stages of branches may be secured in the same year, but this must not be attempted till the proper formation of the two lower branches is secured. The dotted lines in Fig. 3 will show the positions that have been successively occupied by the branch E, when

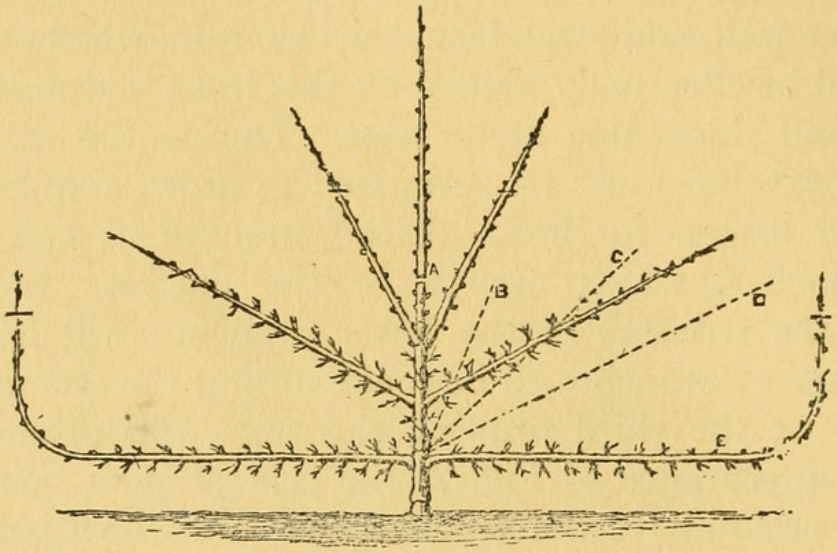

FIG. 3. THE PALMETTE VERRIER
FIFTH PRUNING

in course of formation, and that it is by no means necessary to train a young branch from the beginning in the exact position it is required to take. In fact, this form is only to be well and easily perfected by allowing the young shoots to first grow and gather strength in an erect or oblique position. The branch E kept company when young with the central branch, and was at B; then it was lowered to C, next year to D, and finally to its horizontal position. Some care is required to make the bend of the shoots equal and easily rounded. If the tree be trained on a wire trellis, it is best to place two bent rods in the exact position necessary, and before we require the shoot

to be bent. They must be placed at exactly equal distances from the main stem, and be equal in curvature. Then it is an easy matter to gently attach the growing shoot to them; it will soon harden to the desired bend. Against a wall it will be easy to direct it with shreds and nails; if the wall be wired the bits of bent twig may be applied, as on the trellis. Like care should be bestowed upon the other bends, as they require to be made; but of course the outer and lower one is of the greatest importance. As this form is not at all presentable if the outer branches be incomplete, grafting by approach is sometimes employed to repair this defect, as shown in Fig. 4.

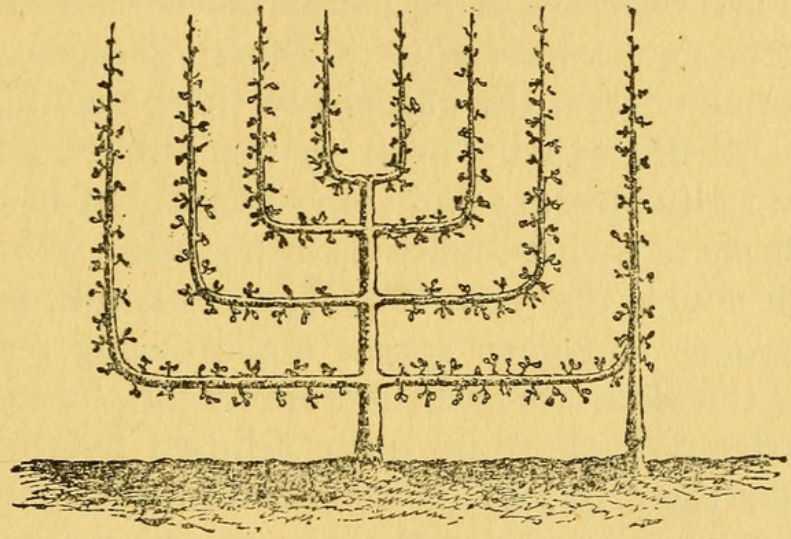

FIG. 4. PALMETTE VERRIER, WITH WEAKLY OUTER BRANCH COMPLETED BY GRAFTING

The reader will observe that, in the formation of this Palmette Verrier, the custom is not to attempt training the young shoot in the position it is finally destined to occupy; but, on the contrary, to permit it first to grow sometimes in an erect, or at least in an oblique direction, so that the sap may flow upwards without check. Nothing is easier than taking down the shoots from time to time, as they become strong and well developed. Now this is a principle almost unknown, and certainly not practised in this country; being applicable to many forms of training, I can strongly recommend it, having frequently witnessed the good effects produced by carefully carrying it out.