

FIRST LESSONS IN FRUIT GROWING—IV.

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Forming the Tree Top.

IN the last lesson, we studied the structure of the tree trunk, and learned something of the way in which new growth is added each year.

In this lesson, we shall look into the top of the tree and note some of the peculiarities of the branches composing the head.

The formation of the head of most of our fruit trees is begun in the nursery by cutting back the top of the young tree at whatever height it is desired the head should start, and by lopping off also the lower branches nearly to the top. Several branches are thus started into rapid growth near the top, and it is often left for the planter when transplanting these trees into the orchard to thin out all but three or four, which become the **main branches** and form the frame-work of the tree.

From the main branches, which are situated upon the trunk, are thrown out numerous secondary branches, which subdivide again into smaller branches, until a branchy top is formed.

What Determines the Shape of the Head.

The form of the head depends largely upon the habit of growth of the branches, which varies greatly, not only with the different species of trees, but also with the varieties of any particular species. In most kinds of pears, the branches have a very erect habit of growth, which naturally causes them to form tall narrow heads. In apple trees we see a greater tendency for the branches to spread, although in a few varieties, such as the Yellow Transparent, there is a more or less upright habit of growth as in the pears. The branches of the Northern

Spy have what might be called a curved erect habit, that is, they branch out somewhat horizontally, and then become more or less erect. A horizontal habit of branching may be seen in the Roxbury Russet and Greening, and such trees form spreading flat-topped heads. The two extremes in habit of growth may be seen in the Abundance and Burbank plums; the former grows very erect, while the latter is a sprawling, horizontal grower, the branches of which often become drooping from the weight of crop.

Shoots.

Shoots are branches of one season's growth. In a young vigorous growing tree, the shoots annually formed are often several feet in length, but as the tree becomes older and its vigor diminishes, its energies are turned to the production of fruit rather than wood, and the new shoots are often not more than a few inches in length. In Fig. 2260, at (a). (a)., may be seen the short shoots of last year's growth in a Morello cherry.

The long sprawling shoots in grape-vines and berry-bushes, when matured, and known as canes. The term sucker, or watersprout, is often applied to the strong shoots which make their appearance on the older branches, particularly after the tree has been severely pruned. Such shoots are an effort on the part of Nature to restore the equilibrium between top and roots which has been disturbed by severe pruning. The term **sucker** is more correctly applied to those shoots which come up around the base of the trunk, or which spring from underground stems or injured roots. The tendency to sucker is much more common in some species than in