of the tree, and therefore tends to increase its fruitfulness. By it we remove the foliage just when it is in active operation, taking in from the atmosphere carbon, and otherwise transforming the crude sap into a suitable liquid for building up the cellular tissues of the trees. To a limited extent this may be done in safety, but if done too freely the tree will be some time in recovering its strength.

On the other hand, early spring pruning, being done when the tree is dormant, does not affect the vigor of the tree so much, and consequently strong growth results in order to maintain the equilibrium between the roots and the branches.

In favor of the summer time, it is urged that wounds made then heal more readily than when made in winter. This is true, for the growth at that time begins to cover the wounds while they are yet fresh; but perfect healing will also follow the winter pruning, provided the wound is properly protected from the air by paint or varnish.

To a limited extent, then, summer pruning is advisable, especially where trees are growing thriftily, and need a check to induce fruitfulness; and the proper time for it is when the first growth is completed, and the terminal bud formed, for by that time the cambium is sufficiently matured to perform nature's cure of the wounded portions. Generally speaking, this period is from the middle of June until the middle of July.

Winter pruning is generally adopted because it is the season of the
greatest leisure, and the naked limbs enable the operator to judge best which should be removed; but the term is misleading, for it must never be done when the wood is frozen,


Fig. 13.
and hence either the fall, the early spring, or only the mild days of winter, are at all suitable.

Another caution must here be


Fig. ${ }^{4}$.
given, and that is, never to prune in spring after the buds begin to swell and the first growth is pushing, for the sap, being active and not yet sufficiently matured for healing the cut, will leak, and this so-called

