Operation of budding. Above left—When the operator is standing in position ready for budding, the remaining side growth is held back by his legs. Above middle—Making the T-shaped cut in the stem of the stock ready for insertion of the bud. Above right—The bud has been inserted and the single-wrap tie is being made. At right—Finishing the single-wrap tie.

which can be transmitted to the stock. This also applies to trees from which cuttings or seeds are collected for propagation of stocks.

Preparation of Budsticks

The leaves should be removed from the budsticks as they are collected or as soon after as possible. This operation is important, as it reduces the loss of water by transpiration through the foliage. When the leaves are being removed about ¼in. to ½in. of the petiole (leaf stalk) should be left attached to the budstick. This short piece of stalk acts as a handle when the bud is placed in position on the stock and makes the operation easier. A few inches of both the top and bottom of the budstick should also be removed, as the buds on these portions are usually not well developed. The stipules, which are small, leafy outgrowth from the base of the petiole, should also be removed to reduce transpiration. This applies particularly to varieties of fruit which have large stipules. On other varieties the stipules are insignificant.

Once the budsticks have been prepared they should be stood in a bucket containing an inch or two of water, covered with a damp cloth, and kept in the shade. If only a few trees are being budded, the budsticks can be wrapped in damp cloth or paper and left in the shade.

Operation of Budding

Side growths should be cleaned off the lower parts of the stocks a few weeks before budding (see illustration on page 403). This not only allows the budding to be done more speedily, but also assists in the development of a thicker stock.

To do budding neatly and quickly a very sharp knife is necessary. A special budding knife will be found most suitable, as the end of the handle is shaped for lifting the bark of the stock. Some strands of raffia about 12in. long or rubber bands specially made for budding will be necessary to bind the bud in place.

Speed is necessary in budding so that the back of the bud shield and the exposed part of the stock do not dry out. Rough handling with the knife should be avoided; otherwise the wood or the bud may become damaged and spoil the union.

It is essential that wood buds be selected, as blossom buds will not grow. Wood buds are more pointed and thinner than fruit buds. When in doubt as to whether the buds are wood or blossom ones, especially with peaches or nectarines, it is better to select double or triple buds or bud clusters, as one of the buds is always a wood bud.

The operator should stand just in front of the tree with his back to it, then move backward until the tree is between the legs (see upper left illustration on this page). This pushes any side growths out of the way and enables the tree to be held firmly between the knees. All trees in each row should be budded on the same side so that inspection of the buds and cutting of the ties are simplified. The general practice is to insert the buds on the south side of the stocks to avoid excessive heat from the sun.

When the bud is removed from the budstick the shoot should be held with the thick or base end away from the body. The knife should be inserted into the budstick about ¼in. to ½in. below the bud and then drawn up until it is about ½in. past it (see upper illustration on page 407). At this point the blade should be turned slightly so that it nearly reaches the surface about ¾in. to 1in. above the bud. The bud shield