

APPENDIX No. 2

may be planted so that the stock is just at the surface of the soil and all roots are thrown from it.

TOOLS AND APPLIANCES USED IN PRUNING AND GRAFTING.

While grafting implements and appliances are numerous, the work can be done with a few, and as it is not often convenient for the farmer or fruit grower to get a large outfit, only the really necessary things are mentioned. These are:—A sharp, fine-toothed handsaw, to be used for sawing off large limbs, or for making the stubs on trees to be top-grafted. Unless in the hands of a careful man, a saw with one edge is better than one with two, as the upper one is liable to tear the wood above.

A strong pruning knife for cutting the smaller limbs; for smoothing the wounds made by the saw or pruning shears; for trimming off torn edges of branches, and for pruning roots of young trees when planting.

A budding knife, with a thin steel blade, for removing buds, having an ivory handle which is made thin at the end and is used for raising the bark.

A grafting knife, which is used in top-grafting trees. Home-made grafting knives can be easily made. A strong, sharp blade is the chief requisite.

Pruning shears, which are intermediate in their uses between the saw and the pruning knife. They are used for cutting off branches which are too large for the latter and too small to need the saw; for rough pruning and for cutting scions.

A wedge and mallet are also necessary in top-grafting large trees.

Raffia is one of the best tying materials. It is very strong and very pliable and is particularly useful for bandaging when budding.

Cotton yarn, which is used for tying root grafts, is one of the most satisfactory materials for the purpose. The size known as No. 18 knitting cotton is the best. It is bought in balls, which should be soaked for a few minutes in melted grafting wax before using. The yarn may also be drawn through melted wax, which ensures it all being thoroughly soaked, and is, perhaps, on this account preferable to soaking the ball.

There are many kinds of grafting wax recommended, but it is unnecessary to enumerate them all. One of the cheapest and best is that recommended in *The Horticulturist's Rule Book* under the name 'Reliable Wax,' the receipt of which is as follows:—

Reliable Wax.—Resin, 4 parts, by weight; beeswax, 2 parts; tallow, 1 part. Melt together and pour into a pail of cold water. Then grease the hands and pull the wax until it is nearly white. One of the best waxes for either indoor or outdoor use.' This should be heated before using if too hard.

The principal value of grafting wax is to exclude air from the wound, and thus prevent the wood from drying before a union takes place. A good grafting wax should not crack when on the tree, else the air will reach the wound and the wax prove of little value. Many materials may be used instead of grafting wax for this purpose, one of the simplest being a mixture of clay and cow dung, but grafting wax is much to be preferred. Strips of cotton are often used, especially in top-grafting and crown-grafting, for wrapping around the wound after the wax has been applied, for the purpose of helping to exclude the air, and also to assist in holding the scion in position until the union takes place. This cotton is unnecessary if good grafting wax is used; but if a very valuable variety is grafted it is safer to use the cotton, as when the growth of the scion is rapid, there is a chance of its getting broken off during the first season before it is thoroughly united with the stock. Large wounds on trees should be covered with some material that will protect the cut surface from the weather, prevent disease from setting in, and which will not peel off easily. A good dressing of lead paint is probably the best material to use for this purpose. Grafting wax may be used on smaller branches.