

Horticulture.

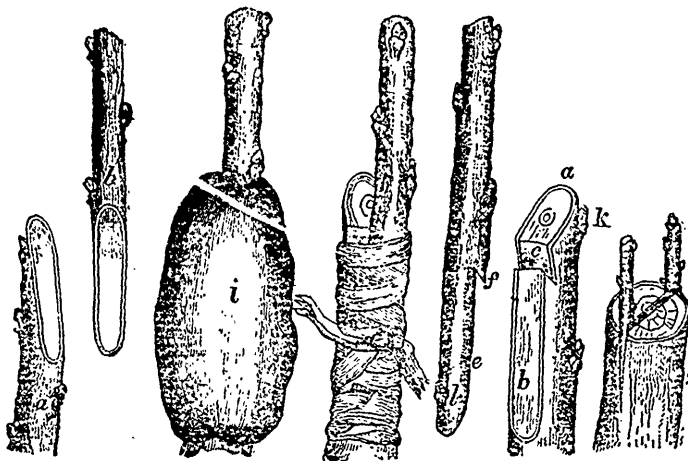


FIG. 1.

FIG. 2.

FIG. 3.

GRAFTING.

As this is an important operation which every farmer who has an orchard, (and every farmer *should* have an orchard) ought to be able to perform himself, we insert explanatory cuts and a few brief explanations.

When the branch to be grafted is of the same size with the scion, the operation of grafting is very simple and perfect. This mode is called *splice grafting*. (fig. 1.) By a smooth sloping cut upwards on the stock, *a*, and downwards on the scion, *b*; you make the two fit so that the inner bark of one corresponds with that of the other; then bind them firmly together with a strand of matting, or the like, cover the wounds with grafting clay or wax, and the operation is complete. But as the size of the stalk is generally larger than the scion, other modes are necessary which require more skill. The two most common are called *tongue grafting*, (fig. 2:) and cleft grafting, (fig. 3.) The following with the aid of the cuts will sufficiently describe them:—

In Tongue Grafting.—Having chosen your stock of the proper size, cut it off at the point where, *a*, it appears best to fit the graft. If the stock is quite small, it may be within three or four inches of the ground.—Then, with a very sharp knife, make a smooth cut upwards, *b*, about two inches in length. Next make a slit, from the top of this cut about one-fourth of the way downwards, *c*, taking out a thin tongue of wood. Cut the scion four or five inches long, or so as to have three buds; then shape the lower end with a single smooth sloping cut, *e*, about the same length as that on the stock, and make the tongue upwards, *f*, to fit in the slit of the downward stock.—Now apply the scion accurately to the stock making the inner bark of the

scion fit exactly the inner bark of the stock, at least on one side. Without changing their position, tie them together carefully with a piece of bass-matting or tape, *h*. And finally cover the wound with well prepared grafting clay or wax, *i*. This ball of clay should more than cover the union, by an inch above and below, and should be about an inch thick. If grafting wax used, the covering need not be above half an inch thick.

In a month's time, if the graft has taken, it will be expanding its leaves and sending out shoots. It will then be necessary to rub or cut off all shoots between the ball and the ground, if it is a small stock, or all those which would rob it of a principal share of nourishment, if upon a large tree. If the scion or stock is very weak, it is usual to leave one or two other buds for a time to assist in drawing up the sap. About the end of July, after a rainy day, you may remove the ball of clay, and, if the graft is securely united, also the bandage; and the angle left at the top of the stock, *a*, should now be cut off smoothly, in order to allow the bark of the stock and the scion to heal neatly over the whole wound.

Though it is little attended to in common practice, the amateur will be glad to know that the success of a graft is always greatly insured by choosing the parts so that a bud is left near the top of the stock, *k*, and another near the bottom of the scion.

Cleft grafting is a very easy mode, and is in more common use than any other in this country and the United States. It is chiefly practiced on large stocks, or trees the branches of which have been headed back, and are too large for tongue-grafting. The head of the stock is first cut over horizontally with the saw, and smoothed with a knife. A cleft about two inches deep is then made in the stock with a hammer and splitting knife. The scion is now prepared, by sloping its lower end in the form of a wedge about an inch and a half long, leaving it a little thicker on the outer edge. Opening the cleft with the splitting-knife, or a small chisel for that purpose, push the scion carefully down to its place, fitting its inner bark on one side to that of one side of the stock. When the stock is large