

way between the pith and the top; and with the scion commence half-way between the pith and the lower point of the scion. Cut into each about 1 in. When the tongue of the scion is pressed down into the stock the lower end will exactly meet the bottom of the cut in the stock, and the upper parts of each will also meet, so that no cut surface is visible at either end.

I am aware that the manner of making the cuts for the whip graft as described above is not in accordance with the usual practice. The cuts are longer; and although I do not object to the shorter unions, yet I prefer the longer, as I consider that the greater surface of cambium layer effects a stronger union. It will be noticed that the strongest part of the scion so made is the centre wedge, which is usually the weakest part of the scion. I think this is beneficial, because there are four points of union in place of two. In the grafting of grape-vines this style of scion is the only one that gives strong growth; short unions are only a subterfuge with grape-vines.

The binding of the graft must be very firm, so as to keep all parts pressed close together. Tie so that the binding will not become loose, or the scion may rise in parts and a kind of callus form, preventing a perfect union. Further, if there is a lift anywhere, parts of the scion or stock may die, particularly the ends of either, which would not occur if contact were perfect. Care should be taken to use only wood with growth-buds—no fruit-buds should be on the scion.

There is some difference of opinion as to where the cut should be made on the stock. Some think that a bud should be left near the apex. Personally I like to leave a bud in that position, because I consider there is more vitality in the wood close to a bud. I know, however, that it is not a matter of much importance; it is insignificant with a perfect fit and proper binding. With the scion it is different. In my opinion it is imperative to leave a bud at the base of the scion. A cut is made so that a bud is left close to the bottom. The bud, of course, is covered by the raffia and wax, but its influence is present, and this method seems to be much better than having vacant bark at the thin end of the cut. For another reason tight binding and perfect fitting is imperative. The wax is put on while hot. If the fit is not perfect, if there is the slightest opening between the scion and stock, the hot wax may enter, and then the scion may fail, but more likely there will be an imperfect union and a diseased appearance.

The scion should not be too long; two buds exposed make it quite long enough, and there is less left to the drying influences of sun and wind than if it were longer. It is desirable to make the top cut rather short and to wax it over. This is not always