

## GRAPE PRUNING.



PROPAGATORS differ as to the best time for cleft grafting the grape vine, but probably it may be done with best success in spring, just before the buds begin to swell. Any one familiar with the ordinary method of top grafting the apple tree, will have little trouble. The vine is cut off three or four inches below the surface of the ground, split with a grafting chisel, and held open with a wedge until the scion is fitted to its place. The scion need not be over six inches long, and should have a wedge-shaped end, smoothly cut, to fit the cleft in such a manner that when it is allowed to close, the bark of the old and new wood will be in close union. Use no grafting wax; but, if necessary, tie the cleft with a string, and then heap the earth carefully about the graft, leaving but one bud of the scion above the surface (Fig. 642).

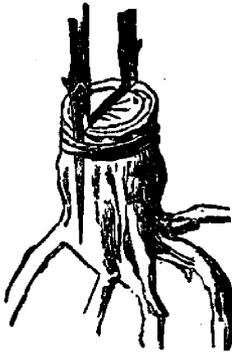


FIG. 642.—CLEFT GRAFTED GRAPE.

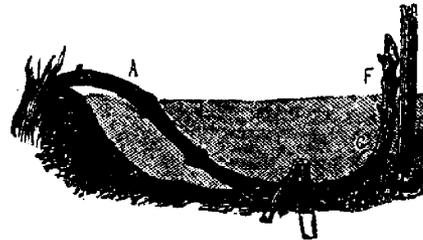


FIG. 643.—GRAFTED CANE OF GRAPE

fasten it in place with a peg, and cover the graft with earth, pressing it down firmly. Leave one bud above ground, and when you see signs of growth rub off all others between the branch and the main stump (see Fig. 643).

The earlier the scions are cut the better, while the buds are quite dormant; after they have begun to swell the scions would be useless. They can be kept in earth, or in green sawdust until needed. The wild vines can be grafted as well as the cultivated varieties.

RELATIONS OF NITROGEN TO FERTILIZERS. — Experiments have shown that nitrogen is essential to the growth of plants; that the quantities of nitrogen available as plant food are very small; that nitrogen is one of the first elements in the soil to be used up; that, of all fertilizing elements, nitrogen is and always has been the most expensive.