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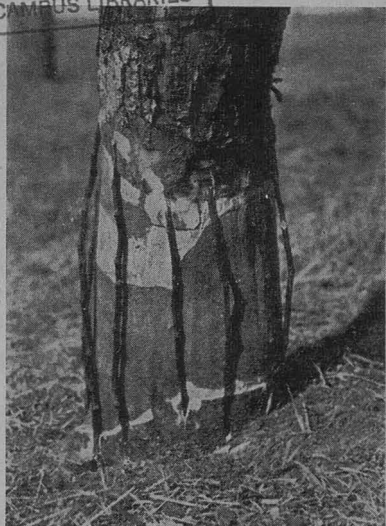
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Bridge Grafting

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Bridge-Grafted Tree Ready for Waxing

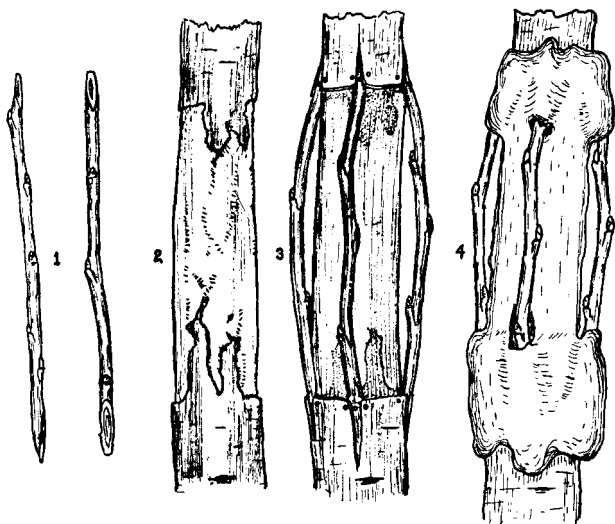
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Bridge Grafting

BRIDGE GRAFTING is used to repair trees girdled by mice or rabbits. It is simply a bridging-over of the girdled area by means of cions which are inserted, both top and bottom, and which, when united with the stock, transport sap and food materials across the injured place and keep the tree alive. However, a tree less than 2 inches in diameter is too small to bridge satisfactorily. It is better to cut it back and grow out a new sprout. Bridge grafting may be performed in the spring during the three or four weeks prior to the leafing out of the tree. If the injury is discovered in the winter, it is wise to cover it with a coat of shellac or bind it with burlap or several thicknesses of paper to prevent the wood from drying and cracking.

The cions used should be strong one-year-old shoots or suckers from which a few inches of the top should be discarded because it is too soft and pithy. The cions must be longer than the area to be spanned.

The first step is to trim the bark on the upper and lower sides of the girdle to make clean smooth edges. Make a beveled cut at the base of the cion $1\frac{1}{2}$ to 2 inches long and then measure the cion against the girdle and make a second beveled cut at the other end of the cion. The cion should be long enough to permit the beveled ends to extend beyond edges of the girdled area. Slits about 2 inches



BRIDGE GRAFT

1. Cions prepared for bridge grafting
2. Tree trunk girdled by rodents
3. Injury cleaned and cions in position
4. Bridge graft completed and waxed

long are cut in the bark at the upper and lower sides of the girdle and the edges are loosened to enable the operator to slip the beveled ends of the cion beneath the bark. The cut surfaces of the cion should be against the wood and the cion held firmly in place with a small brad or cigar box nail at either end. It is sometimes desirable to nail down the flaps of bark on each side of the cion. The process should be repeated until the tree is surrounded by cions placed about $1\frac{1}{2}$ inches apart.

The union at each end of the cions and the entire girdled surface should be thoroughly coated with grafting wax or some commercial grafting compound. It is most convenient to melt the wax and apply it with a brush. Two or three coats of wax over the union are desirable to make a tight cover and prevent drying.

If most of the cions make a successful union, the tree will continue a normal growth and in a few years the cions will so increase in size as to completely cover the girdled trunk with a shell of new wood and bark.

How To Make Grafting Wax

- 4 pounds resin
- 2 pounds beeswax
- $\frac{3}{4}$ pint raw linseed oil

Heat the materials over a slow fire until all parts are melted. Cool slightly and pour into a tub of water. With greased hands work and pull the wax until it assumes a smooth grain, when it should be molded into lumps of convenient size and stored until ready for use. This is a satisfactory wax to be warmed and applied with the hands or melted and used with a brush. The latter method is by far the preferable.

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