

HOW RINGING AFFECTS GRAPES.

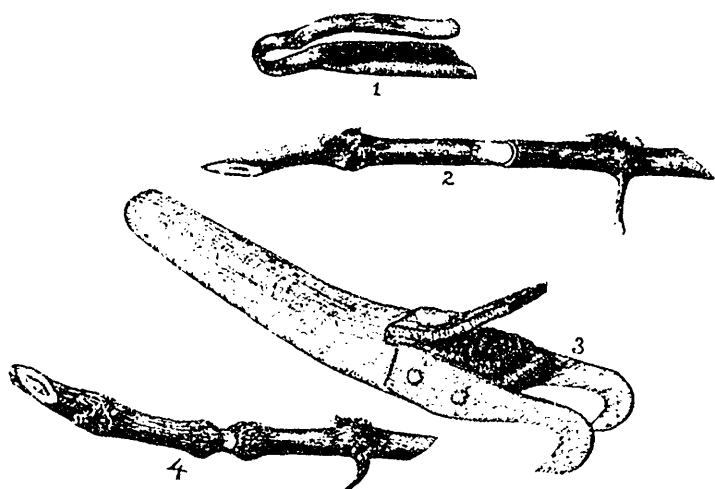


FIG. 1600 (1) and (3).—Tools used in ringing grape vines; (2) vine showing ring of bark just removed; (4) same at the close of the season.

RINGING grape vines is practiced by many growers to secure earlier maturity and larger bunches of grapes. A ring of bark is removed from the bearing arm between the main vine and the buds which are to produce the fruit of the season. This does not interfere with the ascent of the sap, which passes through the outer ring of undisturbed wood; but it does prevent the return of the food which has been formed from the sap in the leaves. Thus parts of the branch above the ring can draw upon all the food formed in the leaves of that branch, none of it passing on to build up the parent vine. Consequently the overfed bunches grow faster and become larger than their less favored mates; but the vine itself may suffer, and size may be added and early maturity produced at the expense of quality.

Ringing is performed either with knife or with tools like those shown in Fig. 1600, a band of bark about an inch wide being removed. Since the ringing

robs the plant, it must be done with care to prevent permanent injury to the vine by the continued drain. However, by keeping the vines well fed, maintaining a good supply of vigorous foliage kept free from diseases and insects and by modifying the method to suit the system of training, vineyards which have been ringed for ten or fifteen years have been kept growing and still yield heavily. In the two arm Kiffin system of training the ring is removed from each arm beyond the fifth bud thus leaving ten buds to furnish leaf surface to support the vine; in the four-arm system only the two upper arms are ringed, leaving the lower ones for foliage and fruit; and in the renewal system the ring is removed just beyond the renewal bud, so that several shoots in the centre of the vine supply it with necessary food. In any system all fruit below the ring should be removed as it will not ripen well, but will uselessly draw food from the already cheated vine.

To test the process and its modifica-