

Canadian apple barrel, and in return received the following, being Section 18 of the "Weights and Measures Act."

18. All apples packed in Canada for sale by the barrel shall be packed in good and strong barrels of seasoned wood made as nearly cylindrical as may be; the staves of such barrels shall be twenty seven inches in length from croe to croe, with heads from sixteen and one-half to seventeen inches in diameter; and such barrels shall be sufficiently hooped, with a lining hoop within the chimes, the whole well secured by nails:

2. Every person who offers or exposes apples for sale by the barrel, otherwise than in accordance with the foregoing provisions of this section, shall be liable to a penalty of twenty-five cents for each barrel of apples so offered or exposed for sale.

Cross-Fertilization.

777. SIR,—Is there any method of cross-fertilization of fruit trees besides planting them close together and leaving the blossoms to take their chance of a cross?

S. T. PETTIT, *Belmont.*

Yes. By artificial crossing, much more certain results are obtained. One should have a definite purpose in plant-breeding, and should select the parents with a certain special object in view. The blossom to be treated is first robbed of its stamens just before maturity, and pollen from the flower of another variety applied to the pistil, with a camel's-hair brush. The blossom is then wrapped in a muslin bag to prevent any other pollen from reaching it. An excellent work on the subject of Plant Breeding, by Prof. L. H. Bailey, has recently been published by MacMillan & Co., New York City.

Raspberry Root Gall-Fly.

778. SIR,—Would you kindly inform me through the HORTICULTURIST, what is the cause of warts growing on the roots of raspberries? My Cuthberts grew well and had two good crops, but after that they stopped bearing, although the bushes still seemed to do well, and after trying them two years dug them up and found all the roots badly covered with warts some as large as a moderate sized bean.

A. J. C., *Listowel.*

Probably this is the work of the raspberry root gall-fly, *Rhodites radicum*. Mr. Saunders in his excellent work on "Insects Injurious to Fruits," says:

"The swelling is composed of a yellow, pithy substance, scattered throughout which are a number of cells, each enclosing a small white larva, the progeny of the gall-fly. These soon change to pupæ and they in turn produce after a time the perfect insect, which eat their way out through the substance of the gall, leaving small holes to mark the place of exit. This gall chiefly affects the black raspberry; it also occurs on the blackberry and sometimes on the roots of the rose."

Wherever these excrescences are found they should be collected and burned.