

**RESULTS.**—In eight days all the flies were dead, most of them having died within three days. On July 28th the cage was removed and the cherries examined. Out of a total of seven hundred and twenty nine were wormy. This indicates that the flies would feed on arsenate of lead even without molasses.

**SMALL CAGES.**—Several attempts were made to get definite data from enclosing flies in small inverted fish-bowls, and placing a bottle of water in each containing fresh cherry twigs with leaves and fruit for the flies to feed upon and oviposit in. In some cages the fruit was poisoned, in others not. These cages were found very unsatisfactory and the data obtained very contradictory.

#### EXPERIMENTS IN SPRAYING ORCHARDS IN 1914.

*Orchard No. 3.*—This orchard belonged to Mr. R. Thompson, of St. Catharines. The soil was a sandy loam in a good state of cultivation. The previous year the cherries had been so badly infested that only a few baskets had been picked, hence



FIG. 17.—Large cage enclosing a tree; type of cage used for many of the experiments.

great numbers of maggots had entered the ground that year and pupated. In June, 1914, it was found by digging that there were still numerous live pupae in the soil. Moreover, observations in the orchard after June 6th showed that numerous flies emerged; cage tests also showed the same thing, so that there is no doubt the fruit would again have been ruined if it had not been sprayed. The main orchard consisted of one solid block of one hundred and twenty four cherries of an unknown variety, that ripened at the same time as the Montmorency. About one hundred yards away were twenty Montmorency trees. All the trees except about six were fourteen years or more old. The species of fly infesting the orchard was almost entirely the Black-bodied one, only two or three individuals of the other species being seen. The first application was given on June 8th and the second on June