

A second disease, fungous in its nature, is sometimes prevalent. The affected caterpillars become dry and rigid, and remain for some time with a portion of the body attached to the bark or twigs.

Both these diseases were noticed during 1912 in the Gatineau Valley, Quebec, and were effective later in controlling the outbreak.



Fig. 8. Cluster of Caterpillars of *M. disstris*. (After Lowe, Geneva Experiment Station. Bull. 180.)

ARTIFICIAL METHODS OF CONTROL.

The control of these insects on wide areas of forest lands is not at present to be considered. The following directions apply to the protection of shade trees, orchards, parks and wood-lots.

The Destruction of Egg-masses.—While the trees are bare of leaves the egg-masses may be very easily distinguished on the twigs. From each egg-mass, approximately 150 voracious young caterpillars will emerge in the following April. Much good can, therefore, be done by removing these egg-masses from small and medium-sized trees, and burning them before the first of April. This practice is profitable only on the more valuable fruit and shade trees. Ten egg-masses destroyed during the winter rid a tree of from 1,500 to 2,500 caterpillars for the following spring. Those left may be more easily controlled.

Jarring.—The Forest Tent Caterpillar usually drops to the ground when the parts of the tree near it are jarred or shaken. By striking the branches near the clusters of caterpillars with a long-handled, padded mallet, the greater part of the caterpillars can be removed from small trees and from those of medium size. The trunks must then be banded with one of the adhesive mixtures described in the next paragraph, to prevent the creatures ascending to their old feeding grounds. It has been recommended to spread a large sheet beneath the trees before jarring, and to gather and destroy the caterpillars which fall.

Banding.—Uninfested trees frequently need to be protected from wandering caterpillars which have fallen from their original food-trees, or have been "jarred" therefrom, or are seeking new feeding grounds. These caterpillars can be prevented from climbing trees by banding the trunks, five or six feet up, with cotton, or tree