

they are then driven out again, and the other side is treated in the same manner. The quantity of liquid thus applied is very small, but has been found sufficient. Previously, Prof. Alwood employed two men at milking time, and used one or two pints for each animal.

The knapsack sprayer mentioned above consists of a tank of 4 or 5 gallons capacity, fitted with straps for carrying it on the back, and supplied with a small force pump, a few feet of rubber hose and a spraying nozzle. These can be procured from several of the pump makers for about \$12, or \$14, complete.

Smaller and less expensive pumps would answer equally well, and may be obtained at prices ranging from \$2 to \$5 from most of our Canadian seedsmen. The following are the addresses of some of the best pump makers in the United States:—

Thos. Woodason, 451 East Cambria St., Philadelphia.

Albinson & Co., 2026 Fourteenth St., Washington, D. C.

Gould's Manufacturing Co., Seneca Falls, N. Y.

The Nixon Nozzle and Machine Co., Dayton, Ohio.

Adam Weaver, Vinland, N. J.

I am not aware that any pumps of the above classes are made in Canada; but doubtless they can be obtained from Canadian agents.

Should there be any Canadian manufacturers who make spraying pumps, I shall be glad to hear from them.

II. *Active*.—Of applications to destroy the fly, a proprietary substance consisting mainly of tobacco dust and creosote, and known as "X. O. Dust," manufactured by a Baltimore firm, is very highly spoken of, particularly by Prof. J. B. Smith, of the New Jersey Experiment Station. This costs about 25 cents a pound. When placed upon the cattle by dusting it through the hair, the flies will not remain long enough on the animals to bite them. Its effects last only about two days.

Kerosene emulsion made as directed above, sprayed over the cattle, killed all the flies reached and prevented others coming, as long as the odour lasted, which was from three to seven days.

Remedies for the destruction of the perfect insects, are mainly useful upon the first appearance of the pest in a new locality, or early in the season for the destruction of the first brood. The best way to fight this enemy is by the treatment of the cattle droppings so as to destroy the eggs and larvæ. The maggots can only live in the dung while it is in a moist condition. Any means, therefore,