

## FIGHTING PLANT ENEMIES.

The devices and implements used for fighting plant enemies are of two sorts:

- (1) those used to afford mechanical protection to the plants;
- (2) those used to apply insecticides and fungicides.

Of the first the most useful is the covered frame. It consists usually of a wooden box, some eighteen inches to two feet square and about eight high, covered with glass, protecting cloth, mosquito netting or mosquito wire. The first two coverings have, of course, the additional advantage of retaining heat and protecting from cold, making it possible by their use to plant earlier than is otherwise safe. They are used extensively in getting an extra early and safe start with cucumbers, melons and the other vine vegetables.

Simpler devices for protecting newly-set plants, such as tomatoes or cabbage, from the cut-worm, are stiff, tin, cardboard or tar paper collars, which are made several inches high and large enough to be put around the stem and penetrate an inch or so into the soil.

For applying poison powders, the home gardener should supply himself with a powder gun. If one must be restricted to a single implement, however, it will be best to get one of the hand-power, compressed-air sprayers. These are used for applying wet sprays, and should be supplied with one of the several forms of mist-making nozzles, the non-cloggable automatic type being the best. For more extensive work a barrel pump, mounted on wheels, will be desirable, but one of the above will do a great deal of work in little time. Extension rods for use in spraying trees and vines may be obtained for either. For operations on a very small scale a good hand-syringe may be used, but as a general thing it will be best to invest a few dollars more and get a small tank sprayer, as this throws a continuous stream or spray and holds a much larger amount of the spraying solution. Whatever type is procured, get a brass machine it will out-wear three or four of those made of cheaper metal, which succumbs very quickly to the, corroding action of the strong poisons and chemicals used in them.

Of implements for harvesting, beside the spade, prong-hoe and spading-fork, very few are used in the small garden, as most of them need not only long rows to be economically used, but horse-power also. The onion harvester attachment for the double wheel hoe, may be used with advantage in loosening onions, beets, turnips, etc., from the soil or for cutting spinach. Running the hand-plow close on either side of carrots, parsnips and other deep-growing vegetables will aid materially in getting them out. For fruit picking, with tall trees, the

wire-fingered fruit-picker, secured to the end of a long handle, will be of great assistance, but with the modern method of using low-headed trees it will not be needed.

Another class of garden implements are those used in pruning but where this is attended to properly from the start, a good sharp jack-knife and a pair of pruning shears will easily handle all the work of the kind necessary.

Still another sort of garden device is that used for supporting the plants; such as stakes, trellises, wires, etc. Altogether too little attention usually is given these, as with proper care in storing over winter they will not only last for years, but add greatly to the convenience of cultivation and to the neat appearance of the garden.

As a final word to the intending purchaser of garden tools, I would say: first thoroughly investigate the different sorts available, and when buying, do not forget that a good tool or a well-made machine will be giving you satisfactory use long, long after the price is forgotten, while a poor one is a constant source of discomfort. Get good tools, and take good care of them. And let me repeat that a few dollars a year, judiciously spent, for tools afterward well cared for, will soon give you a very complete set, and add to your garden profit and pleasure.