

emerged. At first I took them for the European species, which, however, it is said, also occurs in this country, but Dr. George H. Horn has kindly identified them for me as *S. bituberosa*, a native species of the North-West Territories. It is probable that the usual habit of this insect as well as of *S. opaca* is to feed upon carrion; but the fact that they occasionally develop a taste for vegetation makes it necessary to be on guard against them.

Cut-worms were as usual complained of in various districts, the species most commonly sent in being *Carneades mes-soria*, Harr. (Fig. 1) in onion-beds, *C. ochrogaster*, Gn., omnivorous and *Noctua fennica*, Tausch, chiefly in clover and pea fields. The easy remedy of wrapping a piece of paper around the stems of freshly planted tomatoes and cabbages is becoming very popular amongst those who have tried it. In my own experience I have found it one of the most satisfactory remedies. It is done at the time of plant-

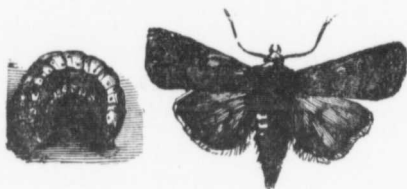


Fig. 1.

ing, is very easy and takes hardly any time. The easiest way is to have a bundle of paper all cut to the right size, about three inches square. Thread these close to one corner on a loop of string and tie this to the basket or box in which the young plants are carried to the field. Before planting a cabbage, pull off one sheet of the paper and lay it on the palm of the left hand, then taking the young plant in the right hand place the stem across the paper and close the left hand, this will leave a loose collar of paper around the stem between the top and the root. When planting leave about two inches of the paper above the ground.

The Turnip Flea. On the whole, there have been fewer complaints of the flea beetle (Fig. 2) this season than for many years. The best remedy is to dust the young plants as soon as they appear above the ground with a mixture of land plaster and Paris Green in the proportion of 25 to one. The land plaster acts as a stimulant to the young plants and soon pushes them past the stage when they are liable to injury from the beetles. The mixture must be perfectly dry. Leaf-hoppers of various kinds have been abundant in some localities and upon various crops. *Erythroneura vitis*, Harr., the Leaf-hopper of the Vine sometimes called "The Thrip,"



Fig. 2.

has been successfully treated upon the Virginia creeper and grape by spraying with Kerosene Emulsion. Another species, *Empoa fabæ*, Harr., has been abundant and injurious upon the English Horse-beans, which are now being extensively grown by farmers for mixing with Indian corn and the seeds of sunflowers in the preparation of ensilage, according to the new Robertson combination. The horse-bean seems to be very susceptible to injury from insects. The *Empoa* above named causes the leaves to turn black and dry up. A large flea-beetle (*Systema frontalis*, Fab.) also injured this plant, among several others, by eating the soft tissues of the upper surface of the leaves. The common Red-legged Locust was even more injurious in the same way, and in the North-West Territories, the large and beautiful Western Blister-beetle (*Cantharis Nuttalli*, Say) entirely defoliated patches of these beans. The sunflower, grown for the seeds, was not without its enemies either—early in the season Cut-worms attacked the young seedlings and later the stems of many plants were much weakened by the pith being entirely consumed by the larvæ of the beautiful Trypetid fly (*Straussia longipennis* Wied). The female is furnished with a hard ovipositor by means of which she inserts her eggs into the stems while soft and the young larvæ live in the pith. They pass the winter as pupæ in the ground and the perfect flies appear in June, when they may be found on Sunflowers and the Jerusalem Artichoke. The fly is deep honey yellow with bright green eyes and has the wings prettily mottled with brown. The season in the Ottawa district has been a particularly wet one and as a consequence some of the usually abundant injurious insects have been conspicuous by their absence. Of