

and 8th August. The Clover-seed Midge, possibly the most injurious insect of the year, has again committed serious depredations; but it is evident that farmers can, in a large measure, obviate this loss by pasturing their clover until the beginning or middle of June, instead of leaving it standing in the field till the end of the month. The Wheat-midge seems to have slightly attacked the wheat over a large area of country, but nowhere with sufficient virulence to leave a marked effect upon the whole crop. Other cereals have not suffered to any large extent. Manitoba and the North-West Territories have been remarkably free from insect depredations; but from certain parts of the Territories have come rumours of the return of the "Hateful Locust." None of the specimens forwarded to me, however, for identification proved to be this species. When in British Columbia, reports were received that the Hessian fly and Wheat Isosoma were severely attacking the wheat crop in California and Oregon. I therefore kept a close watch for these insects, but could not succeed in discovering a single instance of their operations.

The destructive Root maggots which injure so many garden vegetables have been very abundant in certain localities, as the Cabbage Maggot, on Vancouver Island and in Ontario, the Onion Maggot in the Ottawa District, where, however, I found it to be vigorously assailed by several enemies, and succeeded in breeding from larvae collected, two true parasites, a small hymenopterous fly, and a beetle of the genus *Aleochara*. The perfect insects, of this last beetle, were very numerous amongst the infected onions, but at that time, I did not suspect its beneficial mission. The Radish Maggot was abundant in almost every locality whence I have received reports. A most interesting exception to this, however, was observed on the occasion of a visit I paid Mr. John Murray, at Spence's Bridge, in the interior of British Columbia. The climate at that place is very dry and all cultivation has to be effected by means of irrigation. The natural vegetation of the valley consists chiefly of *Cactus*, Sage-brush and other desert plants; naturally the insects which feed upon these, are not likely to relish the succulent vegetables which man cultivates for his own use—consequently, Mr. Murray, is able to cultivate in his garden, without taking any steps for the prevention of insect attacks, the most delicious vegetables. Although under present circumstances the valley of the Thompson, at Spence's Bridge, is dry to the extreme; as soon as water is applied, all vegetation springs up with the most profuse luxuriance. Mr. Murray has brought down water from the mountains at a heavy expence to water his garden, and has transformed a piece of dry sun-parched alkaline river-bank into a garden of the greatest beauty, where radishes are produced over 12 inches in length by an inch and a half in diameter at the top, without a sign of a maggot. Lettuces are equal to those grown with all the care of a Parisian market gardener. Cabbage, spinach, and all other vegetables are grown to perfection, as well as small fruits of all kinds. The only injurious insect I could find was a small lepidopterous larva, which was attacking the Goosberries, and the habits and appearance of which seem to be identical with the common Gooseberry Fruit-worm of the east (*Dakrunia convolutella*). In addition to those useful products, Mr. Murray's garden was at the time of my visit a blaze of beautiful flowers, and his greenhouse contained many rarities.

Cutworms of two or three species, not yet fully worked out, occurred in the most remarkable numbers I have ever witnessed in the garden of Mr. G. A. Knight, near Victoria, V.I., during the months of April, May and June last. Nearly all the specimens I brought back with me to Ottawa, in the larval and pupal states (as well as the larva of a large rupacious Carabideous Beetle, which was found actively destroying them) were unfortunately killed by the excessive heat, from which they could not be protected, during the journey from Vancouver Island. However, as I secured several specimens in alcohol, I hope, with the aid of Mr. Knight, who is a most diligent worker and keen observer, to be able to complete the life-histories of some of these species during the coming summer.

Apple trees, from one end of Canada to the other, have, to a certain extent, suffered from the Codling Moth and Oyster-shell Bark-louse. In the Maritime