

and willow trees it inhabits. Its chrysalis like the caterpillar, is a singular object, being brownish or ashy-grey in colour with some portions whitish, and with the middle of the back forming a thin rounded projection, standing out edgewise like an exaggerated nose! The chrysalis from the autumn-feeding caterpillar remains all winter and produces the butterfly in the spring; these lay the eggs from which proceed the summer brood of larvae, which in their turn, are transformed into butterflies about the end of August or beginning of September.

3. The remaining specimens sent us are false caterpillars of a saw-fly, which we have not before met with. They are blue black in colour, with a series of yellow spots on each side; about three quarters of an inch in length, and furnished with twenty-two legs. One of the specimens formed, during its journey to us, a tough blackish cocoon, the produce of which we look forward to with much interest. It will in all probability turn out to be a species of saw-fly of the genus *Allanthus* or *Nematus*. Our correspondent states that "these insects are very numerous and destructive to the leaves of the Welsh willows; they stick around the edge of the leaf, and will not leave it until it is all consumed; and when they have cleared one lot of willows, they go to the next. There are commonly from two to six or eight around a leaf." For their destruction we should recommend hand-picking, or watering with whale-oil soap suds or any other strong soap-suds.

Among the insects that feed upon the various species of willow, we may mention the beautiful Twin-eyed Sphinx (*Smerinthus geominatus*), the Fork-tail Moth (*Cerura borealis*), a large yellow saw-fly (*Cimbex ulmi?*), the Goldsmith beetle (*Aroca lamigera*), the common May beetle (*Phyllophaga quercina*), the willow gall-gnat (*Cecidomyia salicis*), a plant-louse (*Aphis salicis*), and many others; all of which we have observed in various parts of Canada.

Entomological Visit to the Cooksville Vineyard.

We lately had the pleasure of paying a visit to this establishment, which appears to be rapidly attaining success under the skilful management of Mr. De Courtenay. By a recent Act of Parliament the Company has become incorporated, and the distillation of brandy from the grape is permitted them free of excise duty. The great disadvantages under which they previously laboured having been thus removed, they will now undoubtedly go on and prosper, and we expect before very long to find the Cooksville wine celebrated and appreciated all over the country. Apart from inspecting the vineyard, and going over the establishment, the more immediate object of our visit was to look at it in an entomological point of view, and see whether the vines were affected by any of the numerous insects that commonly prey upon them. Our natural expectations were happily, however, disappointed; for after a close inspection of the vines we could discover no single insect of any consequence. The grasshoppers had made holes in a few leaves, just in the same manner as they are attacking everything else, and one or two leaf-mixers had discoloured a few others; but the injury done was far too trifling to be appreciable. This healthy and unusual state of things is due to the careful pruning and good management of Mr. De Courtenay, which has effectually prevented any insect from getting a lodgment. This is very remarkable when it is remembered that the bearing vines cover an extent of twenty-five acres, and about as many more are planted out for bearing next year or the year after. We have never before seen vines in this country free from some of the caterpillars or beetles which usually make their abode and derive their sustenance from the grape, both in its wild and cultivated states.

USEFUL INSECTS.—The *Entomologist* says:—"We blame the house flies for annoying, and fail to see that in the larva state they have cleared away impurities around our dwellings, which might otherwise have bred cholera and typhus fever. We execrate the blood-thirsty mosquito, and forget that in the larva state she has purified the water, which would otherwise by its material effluvia, have generated agues and fevers. In all probability, when we rail at the *Tabanus* that torments our houses in the summer, we are railing at insects which in the larva state have added millions of dollars to the national wealth, by preying upon those most insidious and unmanageable of all the insect foes of the farmer—subterraneous, root-feeding larvæ."



An Agricultural Tour Eastward.

To the Editor of THE CANADA FARMER.

Sir Having completed an agricultural tour through a large portion of the County of Renfrew, including the Townships of McNab, Horton, Adamston, Bromley, Ross, Westmeath, Stafford and Pembroke, I send you a few hastily written remarks in reference to this journey that may not be wholly devoid of interest to several of your readers.

It should be borne in mind that this is but a recently settled county, and has hitherto been more distinguished for its immense lumbering business than for its agricultural productiveness and advancement; and it is not till within a comparatively short time that the latter has received any marked degree of attention and encouragement. In most of the townships above named agricultural sojourners exist that are more or less flourishing. At this busy season, it is not practicable to get up large meetings, but in going through a township one has an opportunity of personal intercourse with the officers of societies and of a number of the more intelligent and enterprising farmers, and business men generally.

I am under especial obligations to Mr. J. L. McDougall and Mr. McLaren, the President and Secretary of the County Society, in assisting me through a large part of my journey, and to the officers of other societies, I am also indebted. In the Village of Renfrew the meeting was attended by about forty persons, who evinced much interest in the various topics embraced in the address and the conversation which ensued. I may be allowed to remark here that scholastic attainments are by no means infrequent, as many suppose, to the formation of ordinary habits of business. The President of the Renfrew County Society is a young man, who, a few years ago, won the highest mathematical honours in our Provincial University, and now conducts with much care and efficiency an extensive business, embracing both agriculture and commerce.

There are large tracts of excellent land in many parts of this extensive county. McNab, Horton, and Westmeath are considered the best townships. The western and northern parts of the county are exceedingly rocky, and in some places the bare rock constitutes the surface, rendering cultivation forever impracticable. These areas, however considerable, mostly contain patches of good and sometimes deep soil, so as to admit at some future time, when population and markets justify, not only a limited cultivation, but extensive ranges of pasturage for sheep and cattle. Labour sustained by capital and directed by skill, will one day achieve wonders where all is now desolate and forbidding. As much of this section of country has abounded with pine, the lumberman has left the stumps, which, next to stones, are the greatest impediment to cultivation. Stump machines are occasionally employed, and fields here and there may be now seen, even on pine lands, that are free, or nearly so, from these obstructions. This process, however, will not likely be carried on for a long time to come, but upon lands of first quality.

There are no pure breeds either of cattle or sheep in this county. Some of the native animals are really good, but this majority is small, and of slow growth. Here and there, traces of Durham and Ayrshire blood may be observed, always attended with superior symmetry and greater size. Most of the sheep have a strain, more or less, of the Leicester, and admit of great improvement. I urged upon the people the importance of getting pure bred male animals, which, in a short time, would produce an astonishing change for the better. This suggestion, there is reason to hope, will not be wholly disregarded. There are some well bred pigs in the county, and the horses seem mostly adapted to their work, which in a rough, lumbering country is exceedingly

exhaustive. I felt surprised, in some instances, to find that so much had been done in so short a time. Well cleared farms and comfortable homesteads are to be found on the better class of soils; and even underdraining has been practiced to some extent. Stones are generally used for that purpose, but Mr. McDougall has a man on his estate who makes draining tiles by a machine, which, however, is not of the most approved construction. In some parts of the county, Horner & McNab for instance, the Perthshire iron plough is used on clear land. It is an excellent implement, on the Scotch swing principle, and costs when imported about \$10. The farmers find that deeper and more thorough cultivation, after the fields have been cleared of stumps and other obstructions, is invariably attended with beneficial results. In such situations mowing and reaping machines (generally the combined action) are often employed; but from the newness of the country the scythe, cradle, and sometimes the now all but exploded sickle, are usually in requisition.

Much of the soil of this country appears to be well adapted to pastoral purposes, and in my interior course with the farmers this became a prominent subject of conversation. I never tasted better butter anywhere, and excellent cheese is made by Mrs. Forrest and Mrs. McLaren, of Hinton; and there is a pretty wide impression that this branch of industry might be profitably extended. But little barley is grown, what little I saw was good, and this cereal might be much increased with advantage. The same observation applies to turnips, mangolds and carrots, all of which appear to do well. Potatoes are raised extensively, and I never saw the crop anywhere so promising. For oats, pork, &c., there is a large and constant demand northward by the lumbermen. Agriculture is slowly advancing in that direction. I found Pembroke a nice flourishing little town, with adjacent fields well cleared and cultivated, bearing heavy crops. The trip up the Ottawa was fifty miles from this place to the head of steam navigation, I must not attempt to describe. Settlements are of course few and far between, but the scenery from the deep river is both grand and beautiful. People seeking coolness and seclusion during the hot weather, would find both to their heart's content in these magnificent wilds, which echo only to the noises made by the Indian and lumberman. The steamer on these waters is capacious, and affords all the necessary comforts of travelling, and at the end of the trip there is good and extensive hotel accommodation in a plain and inexpensive style. I learnt that oats, potatoes, &c., were grown to a small extent by the lumbermen 150 miles north of this point, where the territory of the Hudson's Bay Company commences.

I may just add that the crops generally are very good, never known better. Winter wheat in many places suffered from too much exposure, it is being gathered, but spring wheat, which is extensively cultivated, is magnificent, and I regret to say, in some places, it is considerably affected by the mildew. Warm and settled weather is now much needed; the late heavy rains have caused the crops to lodge where heavy. With such a change, the farmer's prospects in these parts would be of the most cheering character.

Yours &c.

GEO. BECKLAND.

Arnprior, Aug. 4th, 1866.

BEE'S DESERTING THE HIVE.—Mr. Samuel Dickson, of Cedar Hill, makes the following enquiry:—"Can you, through your valuable publication, give any information respecting the reason why a swarm of my bees has left the hive after being three days in it. They seemed to have begun to do well, leaving more than a pint of honey in it. The hive from which they swarmed was sheltered from the sun in a good beehouse, but the hive from which they have gone away was exposed to the sun. By giving all the information you can in your next issue you will much oblige me."

Ans.—Our correspondent has not given sufficient particulars of all the conditions of the swarm, to enable a satisfactory explanation to be given of the proceedings of the bees. Mr. J. H. Thomas, of Brooklyn, suggests the following:—"In all probability it was on account of the hive being exposed to the sun; as it is often the case that bees will forsake a hive that is greatly exposed and especially if the hive is new or newly painted. There are also other reasons for bees leaving a hive. Sometimes the loss of a queen, or an old musty, mouldy, or sour hive may cause them to leave. Second swarms may sometimes rush out of a hive when the young queen goes out to meet the drone. Again, they sometimes leave and no reason can be assigned for their so doing."