

open, or the arboretum, it is a peculiarly graceful and beautiful object. For a short period also, in the autumn, when it has assumed its golden dress, it presents a pleasing contrast to the evergreens above named. Its wood, however, is valuable for many purposes. It is close-grained and firm, and resists the action of moisture, and, on these accounts, is prized for sleepers in buildings, railway-ties, and for fence-posts. As fire-wood, it is worth in the towns about \$3 per cord. But the chief value of tamarack is for the purposes of the ship-builder.

From the swamps of Bury the knees and other timbers have been cut for vessels ranging from barges of thirty tons to brigs of 400 tons burden. The firm that is operating in this section of country is that of Benjamin, Lewis & Company, of Bangor, Maine. One million feet, board measure, will, by the close of the season, have been cut by them in the present year, in the Township of Bury alone. I shall base my estimate of the loss sustained by the township through the saw-fly, upon the operations of this firm.

In former days when the timber was sound, \$3 per 1000 feet on the stump, board measure, was paid for it. Now, through waste and general deterioration, the trees are worth only one-half their former price. Sap-rot commences very soon after the death of the tree, and by the second year has proceeded to a very sensible extent. Various kinds of "borers" then make their assaults, and penetrate the heart wood, hastening the decay of the tree. It is believed that in three years, through use and decay, the supply of tamarack throughout the country will be exhausted.

The borers that I found at work in the tamarack were larvae belonging to the families Buprestidae, Cerambycidae and Elateridae. I also found one or two cocoons of a Hymenopterous insect.

As we have seen, there are in Bury 640 acres of tamarack giving on the average forty marketable trees to the acre, or 25,600 such trees in all. Every tree contains at least 400 feet, board measure, of lumber. This gives for the whole forest 10,240,000 feet, which, in a sound condition, would have been worth \$30,720, and which left standing would, under favourable circumstances, have been increasing in value. On the 1,000,000 feet that will have been secured by the end of the season, there will be a direct and immediate loss of \$1,500. Supposing, which is hardly probable, that 1,000,000 feet at the same price will be cut next year, there will yet be 8,240,000 feet of lumber, representing \$24,720 in money value entirely lost to the township, besides the value of the younger trees which would have been a source of income in future years, as they successively attained perfection.

The tamarack forest of the townships is a thing of the past. There seems to be a law of nature, that, when one growth of trees is swept away, another of a different kind shall succeed it. The hemlocks and pines of our mountain sides give place to the poplar and the white birch. The tamaracks will probably be succeeded by the American arbovitæ or white cedar (*Thuja occidentalis*). And, if there were no such natural law, the world is too old, its population too vast, and land in the temperate regions too valuable, for us to suppose that large tracts of lowlands will be left in a state of nature for 200 years to come.

The value of the Canadian tamarack was only beginning to be understood in the foreign market. The demands for it were increasing, and with increased demands better prices would have come. All things considered, I do not think it an exaggeration to say that the loss to the Township of Bury alone, through the attacks of *Nematus Erichsonii* may be estimated at \$50,000, and that of Lingwick at double that sum. And when we consider that the ravages of the insect have extended through the townships, and the seigniories,\* and into the country beyond to its utmost known limits, we are brought to the conclusion that *Nematus Erichsonii* has been the worst insect pest that has ever visited the Province of Quebec. It has acquired the "bad eminence" of a position in the rank of infamy above the midge, the weevil, the potato-beetle, and the army-worm.

With its food-plant the insect must of necessity disappear, and in years to come the specimens preserved in our cabinets will be regarded as rarities.

\*In the Seigniory of Lotbinière alone there are 100,000 acres producing more or less tamarack to the acre.

## ON SOME OF

It gives me gr  
upon the collection  
the continent and t

Crossing from  
I visited upon land  
R. Grote, and busy  
found time to take  
of the larvae of Eur  
parts of the world.  
but likewise many  
mann kept alive th  
For the benefit of  
Lahmann, I may s  
species, those of E  
bers. His address

My next visit  
den. Professor Ra  
Meyer immediately  
who was most atten  
always managed to  
library at my dispo  
drawers made with  
pin the specimens t  
appreciate the use c  
under surfaces, it is  
under-sides, all one  
can be examined th

This collection  
tions in all classes c  
been donated to thi  
The whole lot have  
a fine collection of  
foreigners wishing t  
ted as the insects i  
Europe are particu

Herr Ribbe's  
chances of purchasi  
with glass tops (16  
marks, equal to \$9.5

I next went to  
most wonderful coll

Dr. Staudinger  
purpose to accom  
accumulating.

Here one can  
own types, as well s  
inger was devoting  
Dresden.