

## A NEW RETINIA ATTACKING AUSTRIAN PINE.

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*Retinia Austriana*, n. sp.—The Austrian Pine (*Pinus laricio Austriaca*) in the vicinity of Toronto is badly infested by the larvæ of a moth which is apparently an undescribed species of the genus *Retinia*. It resembles in certain particulars the form *Retinia Comstockiana*. This species was described in the CANADIAN ENTOMOLOGIST of Aug., 1879, by Prof. C. H. Fernald, State College, Orono, Me. The specimens, however, were obtained at Ithaca, N. Y., where they were found boring in the small branches of *Pinus rigida*.

The Toronto species burrows in the cortical layer of the Austrian Pine. The tunnels formed pierce the resin ducts, the gum exudes and hardens into masses on the bark of the trees. The point of attack appears to be usually beneath the origin of a limb. The larvæ work on a more or less horizontal plane, and in consequence of this the trees have been, in some cases, almost girdled.

This form also resembles *R. Comstockiana* in its life-history. The larva when mature burrows into the lump of resin that has hardened over the entrance to its tunnel, and there pupates. The thin covering of gum left over the burrow is broken through by the imago when it emerges.

The larva prepares its burrow in the lump of resin in a very characteristic manner. Two larvæ were placed on a mass of the gum, and in a remarkably short time they had sheltered themselves in it. Their mode of operation was as follows: Selecting an accidental crevice in the resin, they crawled into it, and immediately began to weave threads of silk across the opening. The burrow was then enlarged by biting off pieces of the gum. The little masses broken off were disposed of by being forced against the covering of silk threads until they adhered to it. This very soon so effectually closed the burrow as to make it a matter of some difficulty to find its location. This closing of the burrow, when done under natural conditions, may be a means of preventing further exudation of resin. In all the cases examined the tunnel appeared to be quite open for some distance behind the pupa.

In High Park, Toronto, nearly all the Austrian Pines are infested. In all cases the trees are being materially injured, and in some cases have been killed. Trees of the same species in other Toronto localities have been found to be infested.

The ravages of this moth are checked by parasitic agency to a certain extent, as an Ichneumon Fly emerged from a mass of resin collected by the writer.