

Frequently a number of primary-tunnels, cut by different females, radiate from a common "nuptial-chamber" situated just beneath the common entrance-hole. In such cases, with some species, the male cuts the entrance-hole, the nuptial-chamber and often the beginnings of three or four primary-tunnels. The male is then joined by one or more females, which finish the primary-tunnels and the egg-niches; the work of the male, after the entrance of the females, consists mainly in removing the chips and refuse and guarding the entrance-hole, as already mentioned.

When the primary-tunnel is long, as is the case, *e.g.*, with several species of *Ips* and *Dendroctonus*, there may be one or more "ventilation holes" through the bark.

Before egg-laying begins, whether for the first or second time, the beetles cut "food-tunnels," either beneath the bark of the host-tree or in the bark of twigs or trunk of other trees. Many species cut their food-tunnels as continuations of the larval galleries, and hibernate therein.

In Eastern Canada most *Ipidæ* hibernate as adults, though with many species larvæ and pupæ also occur beneath the bark in the winter.

(To be continued).

ACCESSIONS TO CANADIAN BOTANY—I.

BY EDWARD L. GREENE.

There is before me a small collection of plants which, although in quite too fragmentary specimens, is more than ordinarily interesting in view of the locality from which it has come, namely, a part of extreme north-western Yukon, not far below the Arctic circle, and a region not before touched by any collector. In the interior of the Alaskan peninsula there is a great empire of territory somewhat elevated, and extending far on both sides of the international boundary, which is almost unexplored botanically, and which promises many revelations to the student of plant geography. Many years ago there was submitted to me a small collection from the Porcupine River region, a good part of which showed a flora distinct enough from that of the coastal districts of Alaska, and as totally unlike that of the farther interior south-eastward.

The fragments now at hand from the Canadian side of the boundary, collected in the summer of 1911, by Mr. D. D. Cairnes, have intensified the desire for a more careful investigation