## A NEW SPECIES OF TORTRIX OF ECONOMIC IMPORTANCE, FROM NEWFOUNDLAND (LEPIDOPTERA: TORTRICIDÆ).\*

BY ARTHUR GIBSON, CHIEF ASSISTANT ENTOMOLOGIST, IN CHARGE OF FIELD CROP INSECT INVESTIGATIONS, DEPARTMENT

OF AGRICULTURE, OTTAWA.

Towards the end of July, 1915, Mr. Albert J. Boyle, the Acting Secretary of the Newfoundland Agricultural Board, St. John's, Newfoundland, sent to the Dominion Entomologist leaves of cabbages which were infested by a small tortricid larva. The caterpillars pupated in transit, and moths emerged at Ottawa as follows: three on August 9 and one on August 17. The caterpillars, we were informed, were present in very destructive numbers on some farms near St. John's, Nfd., in fact on one farm, according to Mr. Boyle who personally investigated the outbreak, the whole of the first and much of the second plantings of cabbages were destroyed by the larvæ. The larva curls the leaf like other tortricids; this habit is shown in the figure herewith, the photograph having been taken from material received from St. John's.

Mr. Boyle informed us that oftentimes in spring cabbage plants are imported into Newfoundland from Ireland, and for this reason we thought that the moth might be the European species, *Tortrix virgaureana* Tr. Two specimens were, therefore, forwarded to Dr. Guy A. K. Marshall, Director of the Imperial Bureau of Entomology, who submitted them to Mr. Durrant, of the British Museum. Mr. Durrant examined the specimens but could not associate them definitely with *virgaureana*. Dr. Marshall reported that the black spots in the Newfoundland insect are much better defined than in any of the British species and are rather more numerous. Mr. August Busck, of the U. S. National Museum, also kindly examined a specimen of the Newfoundland moth and reported that it is undoubtedly closely allied

<sup>\*</sup> Contribution from the Entomological Branch, Department of Agriculture, Ottawa. November, 1916.

to *Tortrix wahlbomiana* L. var. *virgaureana* Tr., but that it did not match any of the more than fifty bred European specimens in the Museum. He also added, "nor is it any of our described North American species."

In view of the economic importance of the insect it seems desirable to give it a definite name, and, therefore, I propose the following:

## Tortrix oleraceana, sp. nov.

Labial palpi gray outside irrorated with cream, pale cream Antennæ, head, body and fore-wings inside with darker tips. neutral gray, thickly irrorated with cream. The fore-wings bear conspicuous, blackish, irregular spots. In the inner half of the wing these spots are arranged to form an imperfect letter W; they occur as follows: a double transverse anterior series, more or less joined together and extending from the costa to a distance of about three-quarters of the width of the wing; from the posterior end of the anterior series the spots extend obliquely forward to within one-quarter the width of the wing from the costa, and then obliquely backward, joining, a little below the centre of the wing, the inside spots of a double median series which form the distal arm of the W and extend rather closer to the inner margin than the anterior series. The spots in the median series are not so frequent. In the space above the internal angle of the W there are also a few blackish spots. In the distal half of the wing a number of blackish spots are present, extending from the costal to the dorsal area; these latter spots are not arranged after any pattern but occur chiefly toward the margins; near the outer margin the spots are distinctly larger and form a submarginal row. Outer margin blackish with a cream edge. Cilia concolorous with wing. On the costa near the outer row of the transverse anterior spots are two conspicuous cream-coloured areas between which is a blackish blotch; two other distinct cream-coloured costal areas are also present in the distal half of wing, the inner one of which adjoins the outer arm of the W. Between these two latter creamcoloured spots there is a blackish, V-shaped costal spot. In addition to these pale costal areas, there are also a few other creamcoloured spots, not so large or distinct, chiefly in the apical area of the wing.

Hind wings wholly neutral gray, irrorated with cream. Body beneath pale metallic cream. Legs gray, outside irrorated with cream and crossed by bands of the same colour; pale cream inside.

Alar expanse 19 mm.

Type deposited in collection of the Entomological Branch, Department of Agriculture, Ottawa.

Variations.—During the present year (1916) the insect has again been destructive in Newfoundland, and Mr. Boyle has forwarded to us specimens of the larvæ from which additional moths have been reared. The description of the type given above answers closely to all of the specimens reared (8) with the exception of two specimens which differ in having each fore-wing crossed with two irregular whitish bands, in addition to which there is a basal and an apical patch of the same colour. These specimens are labelled metatypes A and B respectively in the collection of the Entomological Branch. The bands and patches on the fore-wings of metatype A are conspicuously whitish, those on B being more of a sordid white.

## THE HEATH COLLECTION OF LEPIDOPTERA.

BY F. H. WOLLEY DOD.

(Continued from Page 232.)

Hadena sp. A single specimen without date, broken and verdigrised, standing as didonea Sm., I believe to be of an undescribed species closely allied to indirecta Grt., and use a manuscript name for it in my private notes. A specimen of it stood wrongly under didonea in Smith's own collection. I have seen some half dozen specimens from widely separate localities.

Hadena egens Walk. (syn. transfrons Newm.).

Hadena claudens Walk. Some of the specimens stood as albertina Hamps., possibly on my authority. Dr. McDunnough November, 1916.