

ENTOMOLOGICAL CONTRIBUTIONS.

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1. THE IO MOTH (*Saturnia Io*).
2. THE FLAT-HEADED APPLE-TREE BORER (*Chrysobothris femorata*).
3. THE LOCUST TREE BORER (*Clytus pictus*).

1. THE IO MOTH *Saturnia (Hyperchiria) Io*. [Fabr].

Order, LEPIDOPTERA; Family, BOMBYCIDÆ.

This lovely moth is well worthy a place in the cabinet of the collector, and from its brilliant colouring and conspicuous markings is always sure to attract notice and admiration.

The moth belongs to a family which has received the name of "BOMBYCES" from *Bombyx*, the ancient name of the silk worm. As, however, it is in the larval or Caterpillar state that this insect more frequently meets our eye, we will begin by a description of it in that stage.

The full grown larva of which, fig. 1 is an admirable representation, is of a most delicate apple or pea-green colour with a broad dusky white stripe at each side bordered with lilac on the lower edge. The body is covered with spreading clusters of green bristles tipped with black. These bristles are exceedingly sharp, and when the insect is handled will produce a very irritating sting similar to but much sharper than that of the nettle, and the effect of which causes a reddening of the flesh and the immediate appearance of raised white blotches which last for a considerable time. Fig. No. 2 shews the appearance of these bristles, some of them as *b*, being stouter and more acute than the others and able to inflict a sharper and more penetrating sting. This stinging property is very curious and is not very easily explained; Mr. C. V. Riley writing of a very similar insect, the *Saturnia Maia*, says, "that the sting is caused by the prick of the spines, and not by their getting broken in the flesh. From the fact that the spines appear hollow, one would naturally attribute their irritating power to some poisonous fluid which they eject into the puncture. But I have been unable to resolve any apical aperture, nor was Mr. Lintner more successful. Hence I infer that the irritating property belongs to the substance of which the spines are formed, and this opinion is strengthened by the fact that those of a dead larva, or of a cast-off skin which has been in my cabinet for several years, still retain the irritating power, though so brittle that it is not easy to insert them."

In the earlier stages the caterpillars are gregarious, feeding together side by side and in going to and returning from their place of shelter, moving in regular files after the manner of the processionary caterpillars of Europe (*Cneocampa processionea*). This marching habit is so very peculiar that it is well worth describing. Though the insects move without beat of drum they maintain as much regularity in their steps as a file of soldiers. The celebrated naturalist Reaumur, writing of the European Procession Moth says, "I kept some for a little

FIG. 1.



FIG.

