

either hollow or not, according to the species. These markings change at the moultings sometimes, but I have never found any variation in the markings of the full-grown larvæ of a species among themselves, though sometimes they differ in larvæ from different species of plants which yet produce the identical imago. The mines, likewise, of the same species, do not vary essentially upon the same plant, nor usually upon different plants; yet sometimes different mines upon different kinds of leaves produce the same imago. Examples of these variations will be given further on. Usually, the larva of a species is confined to a single species of plants, or if it mines the leaves of more than one species they are generally closely allied ones; but sometimes it happens that the same larva—or one producing the same imago—mines the leaves of widely different plants.

It frequently happens that the same plant or even the same leaf is mined by more than one species of larva, and I have seen upon the same locust leaf (*Robinia pseudacacia*) the mine of *Lithocolletis Robiniella*, Clem., *Paractopa Robiniella*, Clem., and another mine, which is, perhaps, that of *Anacampsis Robiniella*, Fitch, though I have not bred the imago; and there is still another miner (of the upper surface) which makes a white, tent-like mine, but with the imago of which I am not acquainted as yet.

Usually a mine is tenanted by only a single larva, but as the mines spread they frequently unite. There are, however, among the larvæ of the 2nd group, some which occasionally, and others which almost invariably, have several larvæ even in the very young mine, and I have seen fifteen larvæ in a mine scarcely a line in diameter.

With very few exceptions, the pupa state is passed in the mine, the exuvia being left partly within and partly without the mine by the emergent imago. A few instances only are recorded in which the larva leaves the mine to become a pupa; and Dr. Clemens has recorded a single instance, that of *L. cratagella*, in which the larva sometimes leaves an old mine and forms a new one.

SECTION A.

SPECIES WITH THE GROUND COLOR WHITE.

Dir. 1st.—Some portion of the wings of some shade of yellow.

Sub-dir. a. No apical spot—no basal streak.

* Wings marked with fasciæ.

1.—*L. hamadryadella*, Clem., *Proc. Acad. Nat. Sci., Phila.* 1859.

There is considerable variation in the distinctness and disposition of