

the arsenical could be applied to the infested plants either as a dust or as a spray. If applied as a spray, care should be taken not to use a pressure strong enough to submerge the pads. Plant parts well out of the water could be coated readily. It was noted that this insect was absent in areas where the pond-lilies were entirely covered by the tide each day.

A NEW GRACILARIA INJURIOUS TO AVOCADO (LEPID.).

BY AUGUST BUSCK, WASHINGTON, D.C.

Gracilaria perseæ, n. sp.

Labial and maxillary palpi ochreous shaded on the underside with black. Face light golden ochreous. Head and thorax purplish ochreous. Antennae whitish with black annulations. Forewings light ochreous with a purplish sheen especially on dorsal half and apex; a few black scales on costa at basal fifth, a small black dot on costa near the middle, and a few scattered black scales at apical fifth seem to be constant in all the specimens before me; there are also a few scattered black scales on the dorsal margin and the extreme apex is slightly clouded with dark scales. Cilia very dark nearly black. Hind wings blackish fuscous with black cilia. Abdomen blackish fuscous above

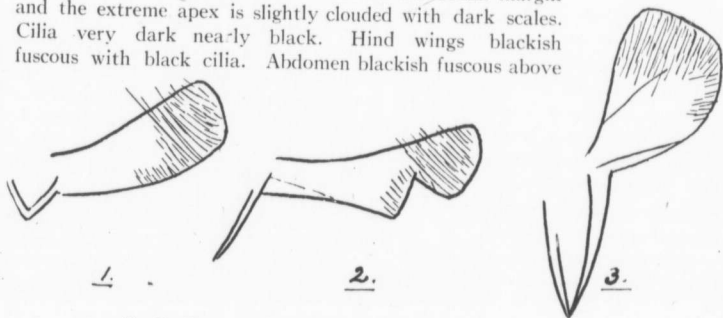


Fig. 22.—Harps of *Gracilaria perseæ* (1), *G. burserella* (2) and *G. violacella* (3).

light golden yellow on the underside. Anterior tibiae thickened with blackish-brown scales; posterior coxae and femora golden yellow with broad, black fasciae; all tarsi white with extreme tip of each point touched with light brown.

Habitat.—Miami, Florida. U. S. N. M. Type No. 23515.

Bred from leaves of Avocado (Aquacate), *Persea perseæ*, at Miami, Florida, during July by Mr. G. F. Moznette, who states that the species is seriously destructive to the young growth. The larvæ are typical of the genus; they first make a small mine between the veins of the young leaves, and subsequently fold the tip or the sides of the leaf downwards. The cocoon is white, narrow, oblong, and is spun in a fold on the leaf.

The species is typical of the genus; in coloration it is similar to and intermediate between *G. violacella* Clemens and *G. burserella* Busck, but the male genitalia are so different in the three species as to indicate that they are not truly closely allied. The outline sketches of the harps suffice to separate the three species. The vinculum of *perseæ* is unusually short for the genus, and the harps are straight oar-shaped (Fig. 1), very different from the deeply-notched harps of *burserella* (Fig. 2), and the broadly-curved harps of *violacella* (Fig. 3); the last form is the more common in the genus.