NEW CENTRAL-AMERICAN MICROLEPIDOPTERA INTRODUCED INTO THE HAWAIIAN ISLANDS.

By August Busck.

Family TORTRICIDÆ.

Crocidosema lantana, new species.

Labial palpi dark fuscous, second joint long with well-developed brush, terminal joint short, porrected. Antennæ simple, rather thick, alike in both sexes, dark fuscous above, yellowish on the underside, which has a short, even ciliation. Thorax dark fuscous. Forewings in the male with a short but deep costal fold, reaching one-third of the wing-length, and disclosing, when opened, a thick matting of short, yellow sense-hairs. Ground-color of the wings whitish, strongly overlaid with dark fuscous and brown, along the costa from near base to apex is a series of short, indistinct, geminate, white dashes with blackish, even intervals. A velvety white tornal spot contains a few single brown scales and is limited rather sharply above by a brown area; on the middle of the dorsal edge is an indistinct whitish spot, faintly connected with the tornal spot. Extreme apex light brown with a black eye-spot. Cilia light fuscous mixed with black and brown scales. Hindwings light fuscous. Abdomen fuscous with ochreous underside and anal tuft. Legs light yellowish, mottled with dark fuscous exteriorly; tarsal jointed with heavy blackish-brown annulations.

Alar expanse, 11 to 12 mm.

Habitat: Tantalus, Oahu, Hawaiian Islands. O. H. Sweezy, collector.

Food plant: *Lantana.*

Type: No. 13149, U. S. National Museum. Cotype in the British Museum.

This species was lately purposely introduced from Mexico to Hawaii, where it is now firmly established. In U. S. National Museum are also specimens from Mexico. The species is typical of the genus in its characteristic wing-form and venation and is much like the type of the genus, the European *plebeiana* Zeller, in ornamentation and general habitus. The peculiar costal fold and tuft on the forewings of the male is the main difference and the species is a striking example of the futility of attaching generic importance to secondary sexual characters in this group of insects; it would manifestly be absurd to separate the present species generically from *plebeiana* Zeller on account of the costal fold.

The genus *Phthenolophus* Dyar* has the identical struc-

*Proc. Ent. Soc., Wash., vol. v, p. 306, 1903. Type, *indentanus* Dyar, North Am.

ture as the genus *Crocidosema* Zeller and should be placed as a synonym of this genus. It has a very similar costal fold, as is found in *C. lantana*, and is also much like this species in ornamentation, but has yet another secondary sexual character in the male, namely, the strongly notched antennæ.

Family TINEIDÆ.

Cremastobombycia lantanella, new species.

Labial palpi silvery white. Face silvery white with a brassy sheen. Antennæ with the entire under side silvery white, upper side dark fuscous, with narrow silvery cross-lines indicating the joints. Tuft on head of mixed white and golden-yellow hairs. Thorax golden yellow. Forewings golden yellow with white markings consisting of a short, thin, basal, central, longitudinal streak, two costal and two dorsal streaks, all slightly edged with black scales exteriorly and all before the apical third. At apical third is a large white costal and an opposite white dorsal blotch, and at apex is a similar white spot, all strongly mottled with single black scales. Cilia golden. Hind wings blackish fuscous. Abdomen dark fuscous above, silvery white on the underside. Legs silvery white with golden tibial bars and with black tarsal annulations.

Alar expanse, 7.5 to 8 mm.

Habitat: Honolulu, Oahu, Hawaiian Islands. O. H. Sweeney, collector.

Foodplant: Lantana.

Type: No. 13150, U. S. National Museum. Cotypes in British Museum.

This is a Mexican species definitely known to have been introduced into Hawaii by A. Koebele; it is now firmly established there. It is the species mentioned by the writer in a footnote on page 134, Canadian Entomologist, April, 1908.

Both fore and hind wings have vein 5 present and stalked with vein 6. The larva makes a large bulged or inflated mine on the leaf of *Lantana*, equally visible on both sides of the leaf. It makes a white, spindle-shaped, slender cocoon, suspended within the mine by silken threads from each end like a hammock.

It is with much satisfaction that I am able to correct my expressed views on Miss Braun's genus *Cremastobombycia:* I am now convinced of its generic validity and it must, as Miss Braun has stated, be regarded as an earlier genus than both *Chambersia* and *Phyllonorycter*, the former of which has retained the ornamentation, but has developed its peculiar larval form, while the latter has retained the ancestral larval

development, but has acquired a modification in the color-pattern. Both genera differ from the present in the loss of a vein in both fore and hind wings.

Cyane terpsichorella, new species.

"The Dancing Moth," Sweezy, Hawaiian Sug. Plant. Ass. Exp. Sta. Bull. 6, pp. 20–21, pl. iii, figs. 6–8, 1909.

Labial palpi and face pure white; head white, tipped with light yellow. Antennæ white with two broad black bands and with the tip mottled with black. Thorax light yellow; patagina white. Forewings light ochreous with two blackish-brown spots on the middle of the costal edge, separated by a very oblique, thin white line; at the end of the cell is an ill-defined, blackish-brown spot with a light, metallic bluish dash above and a similar one below it. The tip of the wing is lighter ochreous and has a thin marginal blackish brown line, followed by a white line at the base of the cilia. Hind wings light ochreous fuscous. Abdomen and legs dusky fuscous.

This description is made from a perfect bred specimen; the ornamentation is easily rubbed and flown specimens appear much lighter.

Alar expanse, 7.5 mm.

Habitat: Honolulu, Oahu, Hawaiian Islands. O. H. Sweezey, coll.

Type: No. 13121, U. S. National Museum.

This is the species mentioned by Mr. Sweezey as "The Dancing Moth" and figured in his recent bulletin. Mr. Sweezey states that it is very abundant and that the larva breeds, evidently more or less as a scavenger, in sugar cane, pineapple, and banana.

The moth is often seen amongst the ferns in the mountains and has a peculiar habit, when first alighting upon a leaf, of running around with much gyrating; hence its name.

Mr. Sweezey has asked me to describe this species, though he has amply demonstrated his ability to determine independently even difficult generic forms by his conscientious work on Microlepidoptera in the above-mentioned bulletin; he has been good enough to send me lately a considerable named collection of Hawaiian micros, including cotypes of his new species, all of which were correctly placed. That he should have had some difficulties in ascertaining the proper generic place for the present species is but natural, as the genus *Cyane* Chambers, in the literature hitherto has been represented by the single type species *visaliella* Chambers, of North America, and very little has been noted even about this since its original description thirty-seven years ago.

Chambers gave, however, an easily recognized description (Can. Ent., v, p. 112, 1873) and a good figure of the venation (Journ. Cinn. Soc. Nat. Hist., vol. II, p. 201, 1880), and the genus has long been well known among the few specialists in the group. The genus is distinctly an American development and in U. S. National Museum are several unpublished species from Central America. Though I as yet have not seen the present species, *Cyane terpsichorella*, from Central America, there is no doubt that it has been introduced into Hawaii from there and that it eventually will turn up in collections from the continent.

THE GENUS LATHETICUS WATERHOUSE.

[Coleoptera: Tenebrionidæ.]

By F. H. Chittenden.

A small tenebrionid beetle of the genus *Latheticus*, probably of Oriental origin, has recently been introduced into the United States, being thus far found in Texas, where it is very evidently established, and in Michigan, where a similar establishment seems probable. The species in question is *Latheticus oryzæ* Waterhouse. As the insect bids fair to become a pest in time, and is therefore of interest to economic entomology, the occasion is taken to furnish a description for the benefit of American entomologists, together with an illustration, and to point out the salient characters which separate the species from a native form, *L. prosopis* Chittenden, which has previously been recorded and described.

LATHETICUS Waterhouse.

Latheticus Waterhouse, Ann. and Mag. Nat. Hist. 5, v, 147, 1880.
Latheticus Chittenden, Jour. N. Y. Ent. Soc., xii, 166, 1904.

Latheticus oryzæ Waterhouse.

Latheticus oryzæ Waterhouse, Ann. and Mag. Nat. Hist. (5), v, 147, 1890.

Lyphia striolata Fairmaire, Revue Entomologique, xi, 111, 1892.

General form of *Tribolium ferrugineum* F., but rather narrower, and with the head relatively larger and broader and more square in general outline. Forehead and middle of the epistoma gently convex: the former not very thickly but very distinctly punctured; the epistoma less distinctly punctured, about twice as broad as long, obliquely (but not much) narrowed anteriorly, declivous in front, impressed at the sides,