Described from one specimen in the collection of O. C. Poling.

Parthenos nubilis, var. APACHE, n. var.

Smaller and much paler than the northern form. Markings of fore wings do not differ from those of the typical form. Hind wings pale yellow. All bands much reduced. Heavy black marginal band of the northern form is only represented by a few black scales on the veins, while all the space between veins is yellow. Submarginal band indistinct, nearly disappearing before it reaches upper margin.

Easily distinguished at a glance from the northern form by the row of dots which replaces marginal band and other characters above mentioned. Types, seven examples in the collection of Dr. William Barnes, of Decatur, and that of the writer.

NEW NORTH AMERICAN ORTHOPTERA.

BY A. P. MORSE, WELLESLEY, MASS.

ODONTOXIPHIDIUM, gen. nov.—Allied to *Ziphidium*, from which it is probably derived. Distinguished from that genus by the form of the anal cerci of the male, which are elongate, straight, with the lateral tooth reduced in size, and an additional tooth upon the dorsal side near the base; and, in the type, by the form of the pronotum, which is sub-sellate and prolonged backward, covering the base of the abdomen both above and on the sides, in correlation with the absence of flight-organs. The type is *O. apterum*, described below.

Odontoxiphidium apterum, sp. nov.—Pronotum sub-sellate, the dorsum straight (♂) or slightly convex (♀) in longisection, smoothly convex in transection, the sutures nearly obsolete, the lateral canthi entirely lacking; posterior margin of lateral lobe nearly straight, passing into the posterior margin of hind process with a barely perceptible sinuosity at an angle of 45° with the dorsum when viewed from the side. Tegmina and wings absent in ♀, tegmina alone present in ♂, covered at base for one-third to one-half their length by the pronotum, the exposed portion one-half to two-thirds as long as the pronotum, vaulted, even the speculum convex, opaque, and abbreviated. Hind femora very stout, almost bulbous, at base. Cerci of ♂ straight, slender, evenly tapering, about as long as the last two segments on the dorsum, the usual lateral, inwardly directed tooth small, about two-thirds as long as apex of cercus and borne at base of distal third, the stem of the cercus (proximal two-thirds) elongate and bearing an additional, dorsally-directed denticle

about midway between the lateral tooth and the base. Supra-anal plate of the ♂ with the posterior process narrow, sub-quadrate, the apical angles rounded, the entire process usually strongly deflexed. Ovipositor straight, about five-sixths as long as the hind femora, acute and symmetrical at tip.

Body: ♂, 11–13; ♀, 11–18. Pron.: ♂, 3.5–4; ♀, 4.5–5.3. Teg.: ♂, 2–3. Post. fem.: ♂, 10–12; ♀, 13–15. Ant.: ♂, 45–60; ♀, 45–50. Ovip.: 10.5–12 mm.

Rusty or olivaceous above, the face and sides of body greenish. A well-marked brown, median dorsal band sometimes present, bordered on each side by a narrow pale line. Sides of abdomen of male sometimes more or less infuscated. Abdomen of young marked with a conspicuous, broad, median fuscous band.

Twelve ♂, fifteen ♀, two young, Aug. 15–Sept. 5, Hastings, Fla. (Brown); 1 ♀, Sandford, Fla., G. B. Frazer (Scudder).

Scudderia cuneata, sp. nov.—In dorsal view the anal segment of the male resembling that of *furcata* (see Scudder, Proc. A.A.A.S., 1898, fig. 8), but with the excavation at apex deeper, twice as deep as its middle width, the sides sub-parallel or slightly approximated distally from the middle, convergent to a very bluntly rounded apex at base of furcation; limbs of the furcula relatively slender, slightly approximate at tip, obliquely depressed. In lateral view similar to *Mexicana*, but with the furcula narrow and sub-acute at tip and the subapical flanges appearing as if truncate, the emargination reduced to a shallow excavation, the outline of the apex as a whole roughly cuneate. Sub-genital plate reaching tip of anal segment, strongly arcuate, rather slender.

Pronotum with parallel sides and distinct lateral canthi. Posterior femora spinulose, the spines three in number on outer, six on inner edge, very small, black. Tegmina long and narrow, apex rounded.

Body: ♂, 22. Post. fem.: 25. Teg.: 30x5.5. Wings pass teg.: 5. Ant.: 45 mm.

Green. Antennæ, tarsi and apices of tibiæ of anterior and middle legs, dorsal margin of tibia opposite sense organ, and lateral canthi of pronotum, rufo-flavescent, palest on pronotum, darkest on tarsi. Posterior tarsi and apical seven-eighths of tibiæ infuscated.

One ♂, Alabama (Baker).

Hesperotettix Floridensis, sp. nov.—Resembling *H. speciosus* (from which it is readily distinguished by the shorter tegmina), but rather

smaller, the pronotum more finely rugulose, the mid-carina less pronounced and nearly or quite obsolete on the prozona. Tegmina ovate, about two-thirds as long as wide. Furcula variable, consisting usually of a pair of minute rounded lobes nearly as wide and long as the width of last dorsal segment at their base, but sometimes obsolete. Cerci resembling those of *speciosus*, but more finely pointed, twice as long as their width at base, the basal three-fifths tapering evenly, the distal two-fifths equal, acutely pointed, straight or a little incurved. Female with both valves of the ovipositor slender, their ento-horizontal contours relatively straight, and both dorsal and ventral scoops elongate.

Body: ♂, 17 5-21; ♀, 24-30. Post. fem.: ♂, 11.5-13; ♀, 15-16. Teg.: ♂, 4.5-6; ♀, 5-7. Ant.: ♂, ♀, 8-10 mm.

Grass-green, yellowish beneath, with more or less rufous on the anterior faces of the anterior and middle femora and the dorsal carina of the external face of the posterior femora. Posterior tibiæ bluish-green.

Fourteen ♂, four ♀, Aug. 15-28, Hastings, Fla. (Brown).

The following key may be added to that of Scudder—Rev. Melanopli, p. 57—under A^2:

b^1. Tegmina elongate, two to five times as long as broad, roundly acuminate at tip. ..... *H. speciosus.*

b^2. Tegmina ovate, at most one and one-half times as long as wide ..... *H. Floridensis.*

CANNIBALISM AMONG CATERPILLARS.

The following interesting notes upon this subject are taken from a paper recently received from Mr. L. de Nicéville, of Calcutta*:

"The larvæ of many kinds of butterflies will, when they cannot get vegetable food, eat each other or soft, newly-formed pupæ. Mr. Bell has found that the greatest cannibals in this respect are the larvæ of certain Lycænidæ, and the worst among these, again, are the larvæ of *Zesius chrysomallus*, Hübn., for these will at times, even when plentifully supplied with their proper vegetable food, eat any larvæ which may be in a fit state to be eaten; *i.e.*, which are either on the point of casting their skins, have just cast them, or are just going to pupate. The Lycænid larvæ, which

*"The Food-plants of the Butterflies of the Kanara District of the Bombay Presidency, with a revision of the Species of Butterflies there Occurring"; by Lionel de Niceville, F. E. S., etc. Reprinted from the Journal, Asiatic Society of Bengal, Vol. LXIX., Part ij., No. 2, 1900, pp. 187-278.