

1898

either eye, two pairs of orbital bristles in the female wanting in the male, frontals descending almost to base of second antennal joint, sides of face bearing bristly hairs, and on the lower portion with several macrochaetæ, antennæ from slightly over two-thirds to three-fourths as long as the face, the third joint only slightly longer than the second, arista long pubescent on basal half, thickened on the basal fifth, vibrissæ on a level with front edge of oral margin, two or three bristles above each, cheeks three-fifths as broad as the eye-height. Thorax gray pruinose, marked with three black vittæ; three postsutural and three sternopleural macrochaetæ, scutellum bearing three long marginal pairs. Abdomen somewhat polished, gray pruinose and with darker reflecting spots, last three segments bearing only marginal macrochaetæ. Middle tibiæ each bearing two or three macrochaetæ on the front side near its middle, front pulvilli of male as long as the last tarsal joint. Wings hyaline, tinged with yellow at the base, costal spine longer than the small cross-vein, third vein bristly at least half-way to the small cross-vein, calypteres white. Length, 8 to 10 mm. Oswego, N. Y. One male and three females collected in July and August, 1895 and 1896, by Prof. Charles S. Sheldon, after whom the species is named. Type No. 4069, U. S. Nat. Museum.

ON SOME SMALL BEES FROM ARIZONA.

BY T. D. A. COCKERELL, MESILLA, N. M.

Some time ago Prof. C. F. Baker sent me a lot of small bees collected by Dr. R. E. Kunzé at Phœnix, Arizona, May 12, 1897, "on willows and various low herbs." I have examined these with interest, as they belong to genera not recorded from that region; they prove to be as follows:

- (1.) *Perdita salicis*, Ckll., 1896.—♂. ♀. Very many specimens.
- (2.) *Prosapis mesillæ*, Ckll., 1896.—A few, mostly males.
- (3.) *Halictus meliloti*, Ckll., 1895.—One ♀.

(4.) *Halictus pseudotegularis*, Ckll., 1896.—On April 12, 1897, I took at flowers of *Sisymbrium*, in Mesilla, N. M., a single *Halictus* which differed decidedly from Illinois *H. tegularis*, but, to my surprise, almost agreed with the Mexican *H. pseudotegularis*, except that the wings were clear. Now, among the Arizona bees I find examples of *pseudotegularis* with slightly dusky wings, as in the type of that species; the second sub-marginal cell is noticeably smaller than in *tegularis*, and receives the recurrent nervure further from its end.

(5.) *Halictus Kunzei*, n. sp.—♀. Length hardly 5 mm.; head and thorax shining olive green, abdomen ferruginous, the apical two-fifths blackish. Head rather large, considerably broader than thorax, finely and rather closely punctured, facial quadrangle nearly as broad as long; face with only a few scattered hairs on its lower part; flagellum ferruginous beneath, except at base; clypeus with its apex darkened, its disc smooth, with only a few scattered punctures; mandibles ferruginous except at base; thorax almost entirely nude. Short white hairs on hind part of metathorax and lower part of pleura; mesothorax and scutellum very shiny, punctured at the sides, the punctures becoming scattered centrad, leaving the disc smooth, nearly impunctate; basal enclosure of metathorax semilunar, with fairly strong rugæ; pleura well punctured; tegulæ testaceous; wings hyaline, faintly yellowish, subcostal nervure black, other nervures and stigma honey-colour; third submarginal cell bulging outwardly, narrowed much less than one-half to marginal; legs piceous, with thin white pubescence, knees and tarsi somewhat paler and more ferruginous; spurs pallid, hind spur of hind tibiæ with large teeth; abdomen of the usual form, shining, impunctate, naked, with a very little pubescence at the end; ventral surface ferruginous, with very little hair. The cheeks are broad, but not produced below. One ♀. Known from the few species of similar coloration by the smooth, not granular, mesothorax, etc. It is perhaps nearest to *H. impurus*, Cr., but differs by the scanty pubescence of face, colour of nervures, etc.

(6.) *Ceratina arizonensis*, n. sp.—♂. Length about  $3\frac{1}{2}$  mm., shining black; face narrow, entirely ivory white up to level of antennæ, except the supraclypeal area, which is black; lateral sutures of clypeus marked by a black line; anterior edge of clypeus with a dark spot on each side; labrum ivory-colour, with a dark spot on each side; mandibles black, ferruginous towards ends, but dark at tip; vertex smooth and impunctate, occiput with strong, large punctures; cheeks smooth and impunctate, except quite posteriorly; flagellum brown; mesothorax punctured in front and along hind margin, centrally impunctate; scutellum punctured; base of metathorax minutely striate-granular, more or less tessellate; tarsi pale ferruginous, anterior tarsi more or less white in front; anterior tibiæ white in front, brownish-ferruginous behind; anterior femora black, apex and a stripe beneath for the apical two-thirds, white; four hind knees white, the white continued as a stripe on the tibiæ; tubercles white; wings rather dull hyaline, strongly iridescent,

nervures and stigma piceous or dark brown; abdomen punctate, apex broadly truncate, the truncation slightly concave.

Several specimens. This species does not resemble any of those described from North America. In its black colour, and the truncate apex of the abdomen, it resembles the European *C. cucurbitina*, Rossi. In the pale face it resembles *C. M<sup>o</sup>rawitzii*, Sickm., and *C. flavipes*, Sm., from China. It is therefore a species of unusual interest.

### A NEW SQUASH BUG.

BY F. H. CHITTENDEN, WASHINGTON, D. C.

In the course of an investigation of insects affecting cucurbits, begun in a preliminary way in the season of 1897, as a part of the official work of the Division of Entomology of the Department of Agriculture, it was found that we have in addition to the common squash bug, *Anasa tristis*, DeG., a second species sufficiently resembling it as to have readily escaped the notice of the average observer, but at the same time quite distinct in all its stages. This species is *Anasa armigera*, Say, and it was first observed on cucurbits by the writer July 12, near Colonial Beach, Va., where it occurred on cucumbers. Afterward it was taken by the writer and Mr. F. C. Pratt, of the Division of Entomology, who has assisted in field investigations and collections on different cucurbits, at Ballston, Va., Poolesville and Seat Pleasant, Md., and on the Conduit Road and at Tenleytown, D. C. At the last mentioned place it occurred in great abundance on a late crop of cucumbers and watermelons. As late as the 29th of September, all stages of the insect were found, including the egg. The present year the species was found to be nearly as abundant in some localities as the common squash bug. Such was the case at Marshall Hall, Md., and in one locality in the District of Columbia. It was also observed on squash at College Station and Kensington, Md., and on cucumber at Cabin John, Md.

*Anasa armigera* appears to have very much the same habits as its more common congener, preferring squash of all cultivated plants, but feeding on canteloupe and other cucurbits when squash is not available. It is noticeably more active than *tristis*, flying freely in the hot sunshine and exposing itself on the upper surface of the leaves in midday. It also has a later season, appearing three weeks later, according to recent observations, and remaining in the field after the common species has gone into hibernation. Evidently it is a southern form, and perhaps has