

Wings hyaline. Pterostigma luteous, on inner side and below margined with fuscous ; before it, a few intercostals in anterior wings and a less number in posterior, forked. Veins hairy ; costal veins luteous ; the other principal longitudinal veins luteous, interrupted with fuscous at junctures of transversals ; smaller longitudinal veins luteous, interrupted irregularly with fuscous ; transverse veins of costal series and some of the others luteous, the rest fuscous.

Anterior wings with a series of small fuscous spots on basal portion of submedian vein above, at junctures with transversals ; three larger fuscous spots at intervals along the apical two-thirds of this vein ; bases of a few small apical forks sometimes slightly fumose ; posterior wings a little shorter than anterior, unspotted. Posterior borders of both wings fringed with fine hairs.

*Male*.—Length, 36 mm. ; expanse of wings, 49 mm. ; greatest width of anterior wing, 6.5 mm. ; length of antenna, 6 mm.

Antennæ less clavate than in female. Abdomen one-fifth longer than anterior wings ; the markings on the apical segments heavy and more or less confluent ; appendages short, half as broad as long, one-half length of seventh segment (viewed from below), subcylindrical, obtuse on tip, luteous, sometimes clouded with, or almost entirely, fuscous ; clothed with coarse black spines ; between the appendages below, a very short, triangular, luteous plate.

*Type*—No. 3813, U. S. National Museum. One female specimen collected in San Bernardino County, California, by Mr. D. W. Coquillett.

No. 3813a, U. S. National Museum. One male, taken at Phoenix, Arizona, June 1, 1897 ; from the collection of Mr. Chas. C. Adams.

*Co-types*.—One hundred and one females and seventy-two males taken at Phoenix, Arizona, in June, July and August, 1897, kindly loaned me for study by Mr. Chas. C. Adams, of Urbana, Illinois.

This unusually large and fine series of specimens exhibits some variations. In two of the females, and about the same number of males, the face and vertex are suffused with fusco-ferruginous, so that the fuscous markings are less apparent ; in a few specimens the band on upper part of face and its prolongation toward the clypeus are subobsolete ; in one male the face and clypeus have scattered fuscous spots in place of the usual markings. Small extra spots sometimes occur in the transverse row on the vertex, and two short longitudinal lines or spots are some-