

Catalogue of HYMENOPTERA in the Collection of the Entomological Society  
of Philadelphia, from Colorado Territory.

BY E. T. CRESSON.

(Continued from page 313.)

Fam. FORMICIDÆ.

Genus **FORMICA**, Linn.

1. **Formica rufa**, Linn.

*Formica rufa*, Linn. Faun. Suec. n. 1721; Syst. Nat. i, p. 962. Smith, Cat. Brit. Aculeate Hymen. p. 4 (with full synonymy).

Two ♀, seven ♂, one ♂, specimens.

2. **Formica aterrima**, n. sp.

Black, opaque, abdomen shining; antennæ and legs tinged with fuscous; wings tinged with fuliginous, darker at base.

*Male*.—Black, opaque; head and thorax clothed with a short, suberect, palish pubescence; mandibles tinged with piceous; frontal area triangular and very slightly shining; clypeus prominent, faintly carinate down the middle, the anterior margin entire; antennæ black, the flagellum tinged with fuscous. Wings tinged with fuliginous, darker towards the base; neuration as in *F. rufa* ♂. Legs tinged with fuscous, sericeous. Abdomen ovate, piceous-black, shining, somewhat sericeous, the extreme apex luteous; scale of the petiole subquadrate, more or less emarginate above. Length  $4\frac{1}{2}$  lines.

Five specimens. Closely resembles *F. rufa* ♂, but is at once distinguished by the black legs; the antennæ are rather more robust, and the wings much darker towards the base; the body is similarly shaped, but more robust.

3. **Formica herculeana**, Linn.

*Formica herculeana*, Linn. Faun. Suec. n. 1720; Syst. Nat. i, p. 962. Smith, Brit. Mus. Cat. Hym. vi, pp. 10 & 53 (with full synonymy).

Five ♀, five ♂, seventeen ♂, specimens.

Genus **MYRMICA**, Latr.

1. **Myrmica occidentalis**, n. sp.

Ferruginous; head and thorax densely striated; wings hyaline; abdomen subglobose, polished, the segments fringed with glittering pubescence.

*Female*.—Ferruginous; head and thorax opaque, thinly clothed with a pale glittering pubescence, and densely striated longitudinally, the striae on the thorax much the finest; head large, quadrate, much

broader than the thorax; the cheeks behind and the clypeus in front, with very long, pale-yellowish pubescence; mandibles large, tinged with piceous, and densely striated longitudinally; eyes small, ovate; ocelli minute; antennæ pale ferruginous, the flagellum clothed with short, pale glittering pubescence, gradually thickened towards the tip. Thorax finely aciculate, the sutures tinged with piceous; metathorax transversely striated, with two acute spines on the posterior face. Wings hyaline, tinged with yellowish at base; nervures yellowish-testaceous, stigma fuscous; anterior pair with one complete marginal, two complete submarginal and one complete discoidal cells. Legs clothed with short pale glittering pubescence. Abdomen subglobose, smooth and polished, tinged with honey-yellow, and, as well as the nodes, thinly clothed with short, pale glittering pubescence, more dense on the apical margins of the segments both above and beneath; first node elongate, subpetiolated, the posterior half suddenly protuberant and very prominent, the upper anterior edge with a small central tubercle; second node subglobose, broader than the first, both nodes opaque and minutely sculptured. Length 5 lines; expanse of wings 8 lines.

*Worker*.—Colored and sculptured similar to the ♀, but the head is very large, more than twice the width of the thorax and larger than the abdomen; the thorax is narrow and much strangulated about the middle; the spines of the metathorax are longer and more acute. Length 3 lines.

Two ♀, two ♂, specimens.

2. *Myrmica seminigra*, n. sp.

Black, clothed with rather long pale pubescence; mandibles, antennæ, most of legs, and the abdomen, fulvo-testaceous; wings hyaline.

*Male*.—Head dull black, rather thickly clothed with long pale pubescence, under a very strong lens, minutely aciculate; eyes moderate, ovate; ocelli large; mandibles rather large, dull ferruginous, and rather coarsely striated; antennæ about as long as the head and thorax, fulvo-testaceous, darker at base. Thorax somewhat shining, black, sometimes more or less piceous, clothed with long pale pubescence; sutures of the thorax, tegulæ and posterior portion of the scutellum, fulvo-testaceous; metathorax with two short, very obtuse tubercles on the posterior face. Wings as in *M. occidentalis* ♀. Legs pale piceous, clothed with pale pubescence, the tibiæ and tarsi fulvo-testaceous. Abdomen ovate, sometimes almost globose, fulvo-testaceous, smooth and polished, and, as well as the nodes, clothed with pale pubescence especially on the apical margins of the segments; the nodes much as in *occidentalis*, except that they are shining, the first node is tinged

with piceous, not so suddenly prominent and the upper surface is more rounded and not tuberculate. Length 4 lines; expanse of wings 7 lines.

Fourteen specimens. This may be the ♂ of *M. occidentalis*. A specimen in the collection of the Society from Texas, differs only by having both nodes of the abdomen blackish.

### Fam. MUTILLIDÆ.

Genus **MUTILLA**, Linn.

#### 1. *Opaque species*.\*

*a.*—Head and thorax entirely black; abdomen more or less reddish.

#### 1. *Mutilla Orcus*, n. sp.

Large, black; abdomen above, except base, rufo-ferruginous.

*Female*.—Deep black, with coarse black pubescence, and large deep punctures; head not wider than the thorax; eyes small, round, entire, very convex and polished; antennæ piceous-black at base, the flagellum brownish and sericeous. Thorax slightly narrowed behind and abruptly truncate; the excavations on the sides, for the reception of the legs, are smooth and shining, the posterior truncation less coarsely punctured and somewhat shining. Legs black, with long black pubescence; the tibiæ with short black spines. Abdomen large, ovate, coarsely punctured, black; most of the large basal segment and all the remaining segments above, clothed with a long, dense, rufo-ferruginous pubescence; the node and the base and sides of the large basal segment, as well as the venter, clothed with black pubescence; the large ventral segment is sparsely pubescent and shining; in one specimen the lateral apical fringe of the ventral segments is reddish; the node or small basal segment is rather small, circular at tip, narrowed towards the base, and depressed above, with a short stout tubercle on each side at extreme base. Length 9—9½ lines.

*Male*.—Elongate; colored similar to the ♀, but is much less coarsely punctured, and the antennæ much longer; the metathorax is large and rounded behind, covered with dense, rather coarse punctures, and clothed, rather sparsely, with long black pubescence. Wings ample, blackish, paler at tips; marginal cell short, not exceeding the tip of

---

\* The abdomen of some of the male species is more or less shining, especially of *M. hexagona* Say, but the thorax is always more or less opaque, and roughly sculptured and hairy. In the next division—*Smooth, shining species*—I have placed those species which are distinguished by their smooth, shining, unicolorous appearance, their form mostly long and slender, their abdomen petiolate, and their wings hyaline or slightly clouded; the females of the species belonging to this last division are unknown to me.

the third submarginal cell, the apex broadly truncate; the three submarginal cells distinctly defined, the first longer, and the second as long as the marginal; the second much narrowed towards the marginal, and receiving the first recurrent nervure before the middle; the third submarginal cell subtriangular, much narrowed beneath so that the side nervures become almost confluent with the second recurrent nervure. Legs black, punctured, clothed with black pubescence. Abdomen ovate, gradually narrowed to the tip, closely and rather finely punctured; apical margin of the large basal segment, and all the remaining segments, as well as the lateral apical fringe of the ventral segments, densely clothed with long rufo-ferruginous pubescence, the remainder with black pubescence, sparse on the venter which is shining; the node rather larger than in the ♀, coarsely punctured, with a large flattened, subacute tooth beneath; second ventral segment somewhat concave on the middle, on which there is a deep ovate puncture. Length 10 lines; expanse of wings  $16\frac{1}{2}$  lines.

Two ♀, one ♂, specimens. Easily recognized by the large size, the jet black color, with most of the abdomen above rufo-ferruginous. This species occurs also in Texas.

2. *Mutilla macra*, n. sp.

Slender, black, densely pilose; abdomen petiolate, the large basal segment above orange-yellow; wings blackish, third submarginal cell obsolete.

*Male*.—Elongate, rather slender, black, with long, dense, coarse, black pubescence, and close, rather rough punctures; eyes small, round, entire and very convex; mandibles rufo-piceous at base; antennæ black, the flagellum sericeous. Thorax slightly narrowed behind, the metathorax rounded, somewhat abrupt behind and reticulate with coarse punctures. Wings blackish, with two or three pale streaks beneath the stigma; marginal cell broadly truncate at tip, not exceeding the tip of the third submarginal cell; two distinct submarginal cells, the first about as long as the marginal, the second a little short, much narrowed towards the marginal and receiving the first recurrent nervure near the base; third submarginal cell subrhomboidal, indistinctly defined, the outer nervure being obsolete. Legs black, with black pubescence. Abdomen petiolate, ovate, much narrowed towards the tip, black, with long, dense, black pubescence above, shining beneath; large basal segment above orange-ferruginous, with pubescence of the same color, and close, rather deep punctures; the node rather elongate, swollen at tip, coarsely rugose, the base depressed, with a short stout tubercle on each side; venter shining and sparsely pubescent, the second segment closely punctured. Length 5 lines; expanse of wings 7 lines.

One specimen. Closely allied to *M. fenestrata* St. Farg. (the supposed ♂ of *M. ferrugata* Fab.) but is distinct.

*b.*—Head and thorax black with greyish pubescence; abdomen more or less reddish.

3. *Mutilla hexagona*, Say.

*Mutilla hexagona*, Say, Bost. Journ. Nat. Hist. i, p. 295.

Three ♂ specimens. The scape of the antennæ has a dense tuft of silvery-sericeous pubescence, and the segments of the abdomen are shining and clothed towards the apex with fuscous pubescence. This species occurs also in the Atlantic States, and varies much in size. In some specimens the black pubescence of the thorax predominates over the grey.

4. *Mutilla monticola*, n. sp.

Black, head and thorax above with greyish pubescence; wings blackish, paler about the middle; abdomen subglobose, ferruginous, the segments with an apical fringe of blackish pubescence.

*Male.*—Black, closely and deeply punctured; head and thorax clothed above with long, dense, greyish-ochraceous pubescence, beneath with black pubescence; eyes small, round, entire and very convex; antennæ black at base, the flagellum brown-sericeous; metathorax rounded, rather abrupt behind, reticulate with coarse punctures and clothed with black pubescence. Wings blackish, paler about the middle; marginal cell short, truncate at tip, not exceeding the tip of the third submarginal cell; three submarginal cells, the first as long as the marginal, the second shorter, much narrowed towards the marginal, receiving the first recurrent nervure one-fourth from the base, the third submarginal subobsoletely defined, subtriangular, extending beyond the marginal cell, pointed towards the apex of the wing and much narrowed beneath, the apical nervure confluent with the second recurrent nervure; a curved subhyaline line commences at the stigma and runs through the first and second submarginal cells, and at the tip of the latter it becomes confluent with a spot on the upper margin of the second discoidal cell. Legs piceous-black, with black pubescence, the tibiæ and tarsi more or less tinged with brownish. Abdomen short, broad-ovate or subglobose, ferruginous or honey-yellow above and beneath, closely and rather deeply punctured; clothed with blackish pubescence, rather thin on the large basal segment, and dense on the apical margins of all the segments; the apex with a patch of glittering greyish pubescence, the venter also sprinkled with a similar pubescence; the node sometimes blackish, rugose, swollen at tip, with a prominent central carina beneath. Length 4–5 lines; expanse of wings  $6\frac{1}{2}$ –8 lines.

Nine specimens.



c.—Thorax and abdomen more or less reddish above, black beneath.

5. *Mutilla bioculata*, n. sp.

Large, black, with black pubescence; thorax above and the large abdominal segment with ferruginous pubescence, the latter with a large rounded yellowish-ferruginous spot on each side at tip; wings blackish.

*Male*.—Black, closely punctured, densely clothed with long black pubescence; head entirely black; eyes small, round, entire and very convex; antennæ nearly as long as the head and thorax, black, the flagellum sericeous. Thorax ovate, clothed above with long, dense, yellowish-ferruginous or golden-yellow pubescence, beneath with black pubescence, as well as the metathorax which is broad, rather abrupt behind and coarsely reticulated; tegulæ punctured, shining. Wings ample, blackish, sometimes slightly paler about the middle, with a longitudinal subhyaline streak in the second submarginal and second discoidal cells; marginal cell short, broadly truncate at tip and not exceeding the tip of the third submarginal cell; three submarginal cells, the first longer than the marginal, pointed at either end; the second as long as the marginal, pointed at base and greatly narrowed towards the marginal, receiving the first recurrent nervure about one-third from the base; the third submarginal subobsoletely defined, short, the tip extending beyond the marginal cell and pointed, the side nervures descending almost parallel below the middle to the cubital nervure, where the apical nervure becomes confluent with the second recurrent nervure. Legs deep black, with black pubescence. Abdomen oblong-ovate, gradually narrowed to the tip, black, somewhat shining, closely and finely punctured, clothed above with dense black pubescence, especially on the apical margins of the third and following segments; large basal segment clothed, except at base, with short dense yellowish-ferruginous or golden-yellow pubescence, but not so dense as to hide two large round yellowish-ferruginous spots, one on each side behind the middle of the segment; these spots appear sometimes more or less confluent, having the appearance of a broad band; the node is short and shining black, with sparse black pubescence except on the apical margins of the segments where it is dense. Length 5—8½ lines; expanse of wings 9—13½ lines.

Twenty-one specimens.

6. *Mutilla Creusa*, n. sp.

Black; the head, thorax and large basal segment of abdomen above clothed with yellowish-ferruginous pubescence, the latter with two large ferruginous spots.

*Female*.—Black, closely and roughly punctured; head not wider than the thorax, piceous-black, with black pubescence, the vertex with

golden-ferruginous pubescence; eyes small, rounded, entire and convex; antennæ black, the flagellum sericeous. Thorax elongate, slightly narrowed behind the middle. rufo-piceous above, with dense golden-ferruginous pubescence, the sides and beneath black, with sparse black pubescence; metathorax very abruptly truncate behind. Legs entirely black, shining, with black pubescence. Abdomen large, ovate, densely and finely punctured, black, with black pubescence, except the large basal segment above which is densely clothed with golden-ferruginous pubescence, almost concealing two large, ill-defined, nearly confluent, ferruginous spots on the disk; the pubescence on the upper surface of the third segment are mixed with golden; the node black, short, circular at tip and depressed at base, with a short emarginate process beneath; venter entirely black and somewhat shining. Length  $7\frac{1}{2}$  lines.

One specimen. This may be the ♀ of *M. bioculata*.

7. *Mutilla Medea*. n. sp.

Black; thorax and large abdominal segment above, yellowish-ferruginous.

*Female*.—Deep black, coarsely punctured; head entirely black, sub-orbicular, not wider than the thorax, clothed with coarse black pubescence; eyes small, rounded, entire and convex; antennæ black, the flagellum sericeous. Thorax elongate, slightly narrowed behind the middle, clothed above with dense yellowish-ferruginous pubescence, on the sides and beneath with black pubescence; metathorax abruptly truncate. Legs entirely black, with black pubescence. Abdomen ovate, black, closely punctured, the punctures not so rough as those of the thorax; the large basal segment above obscure ferruginous, and densely clothed with yellowish-ferruginous pubescence, the extreme base, the sides, and the rest of the abdomen with black pubescence. Length  $6\frac{3}{4}$  lines.

One specimen.

8. *Mutilla californica*, Radochk.

*Mutilla californica*, Radochkovsky, Horæ Societatis Entomologicæ Rossicæ, 1861, p. 86, pl. 2, fig. 7.

*Female*.—Black, the head above the eyes, the thorax above, and the abdomen above except the extreme base, densely clothed with ferruginous pubescence, sometimes varying to golden-ochraceous; the head is subquadrate, but not broader than the thorax, the eyes are small, rounded, entire and convex, the antennæ are black, and somewhat sericeous; the thorax is short, broad-ovate when viewed from above, the punctures are close and rather coarse, the metathorax abruptly truncate behind; the legs are entirely black, with black pubescence; the abdomen is ovate, closely and deeply punctured; the node, the

base and sides of the large basal segment, as well as the venter entirely, more or less clothed with black pubescence. Length  $4\frac{1}{2}$ —7 lines.

Eight specimens.

9. *Mutilla fulvohirta*, n. sp.

Black; head, thorax and abdomen above, except base, densely clothed with bright fulvous pubescence; wings blackish.

*Male*.—Head black, coarsely punctured, with long black pubescence, mixed with fulvous on the vertex; eyes small, rounded, entire and convex; antennæ about as long as the head and thorax, black, sericeous. Thorax coarsely punctured, black, the upper surface clothed with a long, dense, bright fulvous pubescence, on the sides and beneath it is black; metathorax broad, abrupt behind, rounded on the sides, reticulated with coarse punctures, and thinly clothed with fulvous pubescence. Wings ample, blackish, much paler about the middle; the cells much as in *M. monticola*, except that the third submarginal cell (which is also very indistinctly defined) is more narrowed beneath, and the second submarginal receives the first recurrent nervure more towards the middle. Legs entirely black, with black pubescence. Abdomen ovate, black, shining, closely punctured and clothed with black pubescence; apical margin, sometimes the apical half of the large basal segment, and all the other segments above, clothed with a dense bright fulvous pubescence; beneath entirely black. Length 5—6 lines; expanse of wings 9—11 lines.

Nine specimens. The pubescence on the upper surface of the head, thorax and abdomen varies from ochraceous to ferruginous, but generally it is bright fulvous. This may be the ♂ of *M. californica*.

10. *Mutilla propinqua*, n. sp.

Black; thorax above red, clothed with golden pubescence, as well as the venter and apical margins of the abdominal segments; wings dark fuscous.

*Male*.—Black, closely punctured, somewhat shining, clothed with black pubescence; vertex tinged with rufo-piceous, and clothed with golden pubescence; eyes small, round, entire and convex; antennæ black, subsericeous. Thorax black, with black pubescence; the prothorax above, the mesothorax and scutellum, rufous, clothed with long golden pubescence; metathorax black, rounded behind, with large, coarse punctures and sparse black pubescence; tegulæ black, punctured. Wings dark fuscous, paler about the middle; marginal cell large, rather long, rounded or somewhat pointed at tip, and exceeding the tip of the third submarginal cell; three distinct submarginal cells, the first nearly as long as the marginal; the second broad beneath, much narrowed towards the marginal, and receiving the first recurrent



nervure about the middle; the third submarginal distinctly defined, short, pointed at tip and much narrowed beneath and receiving the second recurrent nervure. Legs black or piceous-black, the femora beneath fringed with long greyish pubescence, the tibiæ and tarsi with blackish pubescence. Abdomen ovate, black, closely punctured, the large basal segment shining, clothed with a very thin black pubescence; apical margins of all the segments, both above and beneath, fringed with long golden pubescence. Length  $4\frac{1}{2}$  lines; expanse of wings  $7\frac{1}{2}$  lines.

One specimen. A very distinct species, easily recognized by the red thorax, with its golden pubescence, as well as of the apical margins of the abdominal segments. It is closely allied to *M. fulvohirta*, but quite distinct by the coloration of the thorax and by the different shape of the marginal and submarginal cells of the anterior wings.

11. *Mutilla Bellona*. n. sp.

Rufo-piceous; head, thorax and the large basal segment of abdomen above with rufo-ferruginous pubescence; antennæ and legs black; base and apex of abdomen black, the segments above and beneath fringed with yellowish pubescence.

*Female*.—Rufo-piceous, closely and deeply punctured; head not wider than the thorax, clothed above the antennæ with a long, dense rufo-ferruginous pubescence, beneath the antennæ and on the cheeks, the pubescence is black and scattered; eyes small, rounded, entire, convex and polished; mandibles black, smooth and polished; antennæ deep black, the flagellum subsericeous. Thorax ovate, slightly narrowed behind, clothed above with a long, dense rufo-ferruginous pubescence, longer on the summit of the metathorax, which is abruptly truncate behind; sides of the thorax sparsely clothed with long black pubescence, beneath it is more or less mixed with pale yellowish. Legs black, clothed with black pubescence, slightly mixed with pale yellowish, especially on the femora beneath; base of the coxæ rufo-piceous. Abdomen ovate, closely punctured; the large basal segment above clothed with a dense rufo-ferruginous pubescence; the node, the extreme base of the large basal segment and the apical segments above more or less clothed with black pubescence, except the apical margins of all the segments above and beneath, where the pubescence is pale yellowish; sometimes the pubescence of the third segment above is tinged with reddish; the node beneath and the large ventral segment has a scattered pale yellowish pubescence; the node above is black or piceous-black, circular and rugose at tip, and smooth, shining and depressed at base. Length 6—7 lines.

Two specimens. Allied to *M. californica*, but is distinguished by the color of the body being rufo-piceous, instead of black, and by the abdomen having only the large basal segment reddish above.

12. *Mutilla Ægina*, n. sp.

Rufo-piceous; head, thorax and large basal segment above, except extreme base, with reddish pubescence, the remainder with black pubescence.

*Female*.—Very closely allied to *M. Bellona*, from which it differs only by having the pubescence of the legs and of the abdomen, except on the large basal segment above, *entirely* deep black, and the segments not fringed with yellowish. The pubescence of the head, thorax and large basal segment of the abdomen above varies to yellowish-ferruginous. Length 6 lines.

Two specimens.

13. *Mutilla Asopus*, n. sp.

Black; head and thorax above and the large basal segment of abdomen red, clothed above with bright red pubescence; metathorax tinged with reddish; wings blackish; large basal segment of abdomen beneath with a sharp longitudinal, central carina.

*Male*.—Black, with large, close, deep punctures, and long black pubescence; head, above the antennæ, clothed with long red pubescence; eyes small, rounded, entire and convex; antennæ black at base, the flagellum brown-sericeous. Thorax; prothorax, mesothorax and scutellum rufous and clothed with long, dense bright red pubescence; pleura and metathorax rufo-piceous, the latter more reddish at base, reticulate with coarse punctures and clothed with long thin black pubescence; tegulæ with reddish pubescence. Wings blackish, paler about the middle, with a subhyaline dash in the second submarginal and second discoidal cells; marginal cell short, very abruptly and broadly truncate at tip; two distinct submarginal cells, the first as long as the marginal, the second a little shorter, receiving the first recurrent nervure about the middle; the third submarginal cell obsolete defined. Legs entirely black, with black pubescence. Abdomen ovate, gradually narrowed behind, the punctures not so large as those of the thorax; large basal segment rufous, less bright beneath, with a blackish longitudinal stripe on the dividing suture between the dorsal and ventral surface, the dorsal surface, except extreme base and apex, is clothed with a dense bright red pubescence; on the rest of the abdomen, the pubescence is deep black; large ventral segment with a central longitudinal carina, more sharply developed on the posterior half of the segment. Length  $5\frac{1}{2}$  lines; expanse of wings  $9\frac{1}{2}$  lines.

One specimen. May be the ♂ of *M. Ægina*, as it resembles that species in the distribution of color.

d.—Head, thorax and abdomen more or less red above and beneath.

14. *Mutilla Vesta*, n. sp.

Rufous; antennæ, mandibles, legs and apex of abdomen, piceous or black; the pubescence, except on the base and apex of large abdominal segment, golden-ochraceous; head not wider than the thorax.

*Female*.—Rufous, densely and rather roughly punctured, head and thorax clothed with a sparse glittering ochraceous pubescence, but very dense on the apical segments of the abdomen; head not wider than the thorax, the vertex with a few scattered, long, blackish hairs, the pubescence about the mouth long, dense and glittering ochraceous; eyes small, rounded, entire and convex; mandibles piceous; antennæ piceous, the basal joint with short ochraceous pubescence. Thorax rather short, truncate in front, narrowed behind the middle and slightly strangulated, rounded above and behind, but abrupt on the sides, the metathorax is rather abruptly rounded and excavated on each side; the thorax above has a long, scattered, erect, blackish pubescence, and a short appressed reddish pile, having a beautiful golden-red hue when viewed in certain lights; sides of the thorax has a thin, fine pale pubescence more dense in excavations. Legs black or piceous-black, clothed with a glittering ochraceous pubescence; in some specimens the coxæ and femora are more or less tinged with dull rufous. Abdomen ovate, rather less coarsely punctured than the thorax; the node, and the large basal segment, except their apical margins, rufous; the remaining segments blackish; all the segments above and beneath have an apical fringe of long, dense, glittering ochraceous pubescence; the large basal segment above and beneath has a short, scattered ochraceous pubescence, occasionally with a rounded patch of short black pubescence on the basal middle above; sometimes the apex of this segment is broadly black and sometimes the segment is divided down the middle by a blackish line. Length 4—5 lines.

Eight specimens. Is this the *Mutilla ferrugata* Fabr.?

15. *Mutilla montivaga*, n. sp.

Reddish, more or less tinged with fuscous beneath; head large, rather broader than the thorax, which is short, broad, subcordate; legs blackish; apex of abdomen fringed with ochraceous pubescence.

*Female*.—Rufous or rufo-ferruginous, brighter above, which is clothed with a short, dense, appressed, silky-red pubescence, very densely but not coarsely punctured; beneath more or less tinged with fuscous, with a silky ochraceous pubescence; head large, quadrate, a little broader than the thorax, the vertex has a few scattered, long, blackish, erect hairs, the cheeks and mouth more or less tinged with fuscous; eyes small, rounded, entire, convex and polished; mandibles

also polished, and black at tips; antennæ reddish at base, the scape with ochraceous pubescence, the flagellum rufo-piceous. Thorax short, very broad and truncate in front, subcordate, being deeply strangulated on each side behind the middle, the apex truncate and very abrupt; upper surface red or ferruginous, the sides, under surface and metathorax behind often more or less fuscous, sometimes almost black; lateral excavation deep, smooth and polished; posterior face of the metathorax slightly concave, finely sculptured, sometimes shining; sides of thorax and summit of metathorax sometimes with a long erect fuscous pubescence. Legs black, sometimes more or less piceous, clothed with a glittering ochraceous pubescence longer and more dense on the coxæ and femora beneath. Abdomen large, ovate, broad at base, gradually narrowed towards the apex; large basal segment above clothed with a short, dense, appressed reddish pubescence; remaining segments above and beneath fringed with a long, dense pale ochraceous or cinereous pubescence, which also covers the large ventral segment; the apical segments above and the venter entirely is often more or less fuscous; the node is very broad, being nearly as broad as the base of the second segment, flattened, sometimes black, with black pubescence, mixed on the sides with ochraceous. Length 4—6 lines.

Ten specimens. Easily separated from the preceding species by the large quadrate head, by the short thorax, broad in front and abruptly narrowed behind, and by the finer sculpture. The node of the abdomen in this species is differently shaped from that of any of the preceding species, being as broad as the base of the large second segment, whereas in all the others it is rather small and narrow.

16. *Mutilla contumax*, n. sp.

Obscure rufous; head and abdomen densely clothed with silvery-ochraceous pubescence; head very large, broader than the thorax; large basal segment of abdomen with three spots at base and band at apex, fuscous.

*Female*.—Obscure rufous, very densely and somewhat coarsely punctured; head very large, quadrate, broader than the thorax and densely clothed with a silvery-ochraceous pubescence; eyes small, round, entire, convex and polished; mandibles black at tips; antennæ entirely ferruginous. Thorax short, subquadrate, broad and truncate in front, strangulated behind the middle, declivous on the sides and behind; upper surface with a sparse blackish pubescence, on the lateral margins and behind with long scattered, ochraceous pubescence; the deep lateral posterior excavation large, smooth and polished. Legs pale rufous, thinly clothed with ochraceous pubescence. Abdomen ovate, rather broad at base, the large basal segment clothed above with a very short,

appressed, golden-sericeous pubescence, on the basal third a large, quadrate, pale fuscous, central spot, and another smaller one on each side, all connected at base by a narrow transverse band, the apex with a broad transverse band of the same color; the remaining segments above and beneath with a dense fringe of long silvery-ochraceous or cinereous pubescence; the node or small basal segment is shaped like that of the preceding species, but less broad, its apical margin is pale fuscous. Length 5 lines.

Two specimens. This pretty species is easily recognized by the large ochraceous head, and the ornamentation of the large basal segment of the abdomen. It has a close ally in *M. connectens* Cresson, (Proc. Ent. Soc. Philad. iv, p. 387), from Lower California, which differs principally by the second segment of the abdomen having two large fuscous spots, one on the basal middle and the other on the apical middle, both connected by a short narrow fuscous line.

*c.*—Head and thorax red; abdomen above, black and cinereous.

17. *Mutilla ornativentris*, n. sp.

Rufous; abdomen above blackish, with spots or bands of silvery-cinereous pubescence; head transverse, broader than thorax, the latter narrow, elongate and parallel.

*Female.*—Rufous, very densely punctured; head transverse, not quadrate, broader than the thorax; the mouth with long ochraceous pubescence; eyes moderate, ovate, entire; mandibles, blackish; antennæ blackish, sericeous, the three or four basal joints rufous. Thorax elongate, narrow, somewhat rounded in front, the sides subparallel, a little strangulated about the middle, and again widened posteriorly, the sides and behind abrupt; upper surface with a short fuscous pubescence, the sides with a very short, fine, dense cinereous pile. Legs rufous, with ochraceous pubescence; tips of the femora, most of the tibiæ and the tarsi, fuscous. Abdomen elongate, ovate, much narrowed to the apex, blackish above, reddish beneath; all the segments with a broad apical band of dense silvery-cinereous pubescence, the anterior middle of which is more or less sinuate or emarginate; large basal segment with a large patch of silvery-sericeous pubescence, sometimes obsolete, on each side at base; the apical segments above are sometimes tinged with reddish, and in one specimen the large basal segment above is tinged with reddish; the ventral segments have an apical fringe of silvery-cinereous pubescence. Length  $4\frac{1}{2}$ —5 lines.

Three specimens. Easily distinguished by the narrow, subparallel thorax, and the ornamentation of the abdomen.



II. *Smooth, shining species.*18. *Mutilla clara*, n. sp.

Honey-yellow; eyes, spot enclosing ocelli, and most of femora and tibiae, blackish; apex of abdomen clothed with a long, dense, whitish pubescence; wings large, hyaline, the apical margin streaked with fuscous: two submarginal cells.

*Male*.—Uniform honey-yellow, polished, clothed with a long thin whitish pubescence; eyes rather large, rounded, entire, very convex and blackish; ocelli large, enclosed by a blackish spot; tips of mandibles also blackish; antennae as long or rather longer than the head and thorax, brownish, honey-yellow at base. Thorax densely punctured; mesothorax polished, with a few scattered punctures and two deeply impressed longitudinal lines; metathorax abruptly rounded behind, coarsely reticulate, with a broad smooth shining space on the middle, bounded on the sides, and divided down the middle by three sharply defined longitudinal carinae; tegulae honey-yellow. Wings ample, hyaline, faintly tinged with yellowish; with three elongate, longitudinal, pale fuscous streaks on the apical margin and a large pale fuscous spot beneath the second submarginal cell; nervures pale testaceous; stigma rather large and blackish; marginal cell short, rounded at tip; two distinct submarginal cells, the second obliquely subquadrate, receiving the first recurrent nervure before the middle, the basal nervure sinuate; third submarginal cell obliterated. Legs slender, thinly clothed with pale pubescence; coxae and trochanters honey-yellow; femora and tibiae, except extreme base apex, blackish, rest of the legs yellowish-testaceous. Abdomen petiolated, smooth and polished; the node or petiole segment elongate, slender at base and much swollen at tips, and clothed with a long thin whitish pubescence; large basal segment highly polished, naked except its apical margin which has a long dense fringe of whitish pubescence; remaining segments fuscous, densely clothed with a long whitish pubescence, more sparse beneath. Length 4 lines; expanse of wings  $7\frac{3}{4}$  lines.

One specimen.

19. *Mutilla concolor*, n. sp.

Honey-yellow; apex of abdomen rather densely clothed with whitish pubescence; antennae except base, and the femora and tibiae, dusky; wings hyaline, with two submarginal cells.

*Male*.—Uniform honey-yellow, polished, clothed with a thin, long, whitish pubescence; eyes large, round, entire and prominent, as well as the ocelli which are enclosed by a blackish spot; antennae long, honey-yellow, the flagellum above dusky. Thorax rather closely punctured; the suture between the pro- and mesothorax deeply impressed;

scutellum subdepressed, rugose, with a transverse excavation at base; metathorax rounded, coarsely reticulated, with a double shining space at base, enclosed by well-defined carinæ; tegulæ luteous. Wings ample, obscure hyaline; nervures testaceous, stigma fuscous; marginal cell elongate, regular, pointed at tip; two submarginal cells, shaped as in *M. clava*; third submarginal cell obliterated. Legs luteous, with long whitish pubescence; the four posterior femora and tibiæ, except extreme base and apex, more or less blackish. Abdomen elongate, petiolated, oblong-ovate, smooth and shining, clothed with a long, thin, whitish pubescence, very sparse on the disk of the large basal segment, but rather dense on the apical margins of all the segments above and below; the first or petiole segment elongate, rather slender at base and swollen beyond the middle, with a small prominence on each side about the middle. Length  $4\frac{1}{2}$ —5 lines; expanse of wings 8— $8\frac{1}{2}$  lines.

Two specimens. Allied to the preceding species, but easily distinguished by the hyaline wings.

20. *Mutilla nubecula*, n. sp.

Obscure honey-yellow, clothed with sparse pale pubescence; antennæ and legs luteous; wings hyaline with a fuscous cloud beyond the stigma; three submarginal cells.

*Male*.—Uniform dull honey-yellow, shining, thinly clothed with a rather long whitish pubescence; eyes large, round, entire and very prominent, as well as the ocelli; tips of mandibles black; antennæ longer than the head and thorax, luteous-yellow. Thorax above shining, with scattered punctures, those on the pleura very dense; metathorax rugose; tegulæ honey-yellow. Wings hyaline, faintly iridescent, with a rather large fuscous cloud just beyond the marginal cell; nervures yellowish; stigma rather large and blackish; marginal cell short, not longer than the stigma, broadly rounded at tip; three distinct submarginal cells, the second small, subtriangular and receiving the two recurrent nervures, the third still smaller and quadrate, the apical nervure about on a line with the tip of the stigma. Legs entirely luteous-yellow, with thin pale pubescence. Abdomen oblong-ovate, pointed at tip, petiolated, rather closely punctured, shining and with a scattered, long pale pubescence; the first or petiole segment half the length of the whole abdomen, very slender at base, with the posterior half greatly swollen and ovate; the extreme apex of the abdomen with a short, acute, recurved spine, and the fourth and fifth ventral segments have at the extreme apical middle of each, two tufts of erect setæ. Length  $3\frac{1}{2}$ —4 lines; expanse of wings 6—7 lines.

Two specimens. Easily recognized by the fuscous cloud beyond the

stigma on the anterior wings. The small specimen has the neuration of the anterior wings remarkably variable; on the left wing the third submarginal cell is very narrow and transverse, while on the right wing it is obliterated and thrown into the second submarginal, making that cell nearly as large as the first; the marginal cell in both wings is narrower than in the large specimen, and merely margins the stigma.

21. *Mutilla glabrella*, n. sp.

Dark honey-yellow, smooth and shining, thinly pubescent; head black; wings hyaline, with a very short marginal, and three submarginal cells.

*Male*.—Uniform obscure honey-yellow, very smooth and polished, clothed with a thin, pale yellowish pubescence; head black, with fine scattered punctures; eyes very large and prominent, entire and rounded; ocelli also large and prominent; clypeus and mandibles obscure honey-yellow, the former very transverse and much depressed; the mandibles large, broad, the upper margin sinuate and acutely carinate, the apex with three short, obtuse, blackish teeth; antennæ longer than the head and thorax, filiform. Thorax rather broad in front, with thin, subappressed, yellowish-sericeous pubescence; prothorax sunken, not prominent; mesothorax large, rather broadly margined anteriorly, and on each side over the tegulæ a finely impressed longitudinal line, the surface polished, with a few scattered delicate punctures; scutellum smooth, with a few long pale hairs; pleura rather closely punctured, very prominent on the sides and beneath, and behind it a very deep oblique excavation; metathorax very finely sculptured, subopaque, subquadrate, abrupt on the sides and behind, with a long, thin, pale pubescence. Wings ample, hyaline; nervures fuscous, stigma moderate, blackish; marginal cell very short, scarcely more than half the length of the stigma, the apex appendiculated and subacute, the lower nervure more robust than the upper; three distinct submarginal cells, the first as long as the stigma, much narrowed at tip; the second small, triangular, receiving the first recurrent nervure near the base, which is pointed; the third submarginal rather large, quadrate, and receiving the second recurrent nervure about the centre. Legs color of the body, thinly pubescent, the tibiæ and tarsi paler. Abdomen elongate-ovate, pointed at apex, petiolated, clothed with a long yellowish pubescence, more dense towards the apex; first or petiole segment very slender at base and greatly swollen behind the middle and subglobose; posterior margins of the segments depressed or broadly margined. Length 5 lines; expanse of wings 8 lines.

One specimen. Closely allied in form and color to *M. nubecula*, but may be at once distinguished from that species by the smoother sur-

face of the body, the black head, hyaline wings, and the shape of the metathorax.

Genus **MYRMOSA**, Latr.

**Myrmosa unicolor**, Say.

*Myrmosa unicolor*, Say, Long's Second Expedition, ii, p. 331.

One ♂ specimen.

Fam. SCOLIADÆ.

Genus **MYZINE**, Latr.

1. **Myzine sexcincta**, Fabr.

*Scolia sexcincta*, Fabr. Syst. Ent. p. 356 ♂; Ent. Syst. ii, p. 236.

*Elis sexcincta*, Fabr. Syst. Piez. p. 248.

*Myzine sexcincta*, Latr. Gen. Crust. et Ins. iv, p. 112. Guér. Dict. pitt. d'Hist. nat. v, p. 575.

*Tiphia maculata*, Fabr. Syst. Piez. p. 224. ♀ var.

*Tiphia namca*, Fabr. Syst. Piez. 233 ♀.

*Myzine namca*, Latr. Gen. Crust. et Ins. iv, p. 112.

*Myzine similis*, Guér. Dict. pitt. d'Hist. nat. v, p. 575.

*Plesia namca*, St. Farg. Hym. iii, p. 577, pl. 36, fig. 3. ♀.

*Plesia sexcincta*, St. Farg. Hym. iii, p. 584 ♂.

*Plesia maculata*, Guér. Rev. Zool. 1838, p. 58.

Eight ♂ specimens.

2. **Myzine hyalina**, n. sp.

Black: frontal orbits, clypeus, line over collar, anterior margin of mesothorax, spot on its disk, tegulæ, two spots on pleura, scutellums, marks on each side of metathorax, legs except base, and bands on abdomen, yellow; wings hyaline.

*Male*.—Black; head and thorax opaque, finely punctured, clothed with a thin, whitish pubescence; frontal orbits, not extending above the sinus of the eyes, a spot immediately above the base of each antenna, the clypeus, and the mandibles except tips, yellow; antennæ robust, as long as the head and thorax, opaque black above, dull rufotestaceous beneath, except the basal joint which is yellow. Thorax: a line over the collar, anterior margin of the mesothorax, sometimes confluent with the line over the collar, a subtriangular spot on the disk of the mesothorax, tegulæ, a large transverse spot on the pleura beneath the anterior wing, as well as a small rounded spot behind it, both scutellums, and a longitudinal, sublunate spot on each side of the metathorax, all yellow; metathorax densely and rather finely sculptured. Wings hyaline, the extreme apex slightly fuscous; nervures yellowish. Legs yellow, the coxæ, trochanters and base of femora, black. Abdomen shining black, iridescent in certain lights, delicately and sparsely punctured, and clothed with a short, erect, sparse whitish pubescence; the apex of the 2—6 segments above finely margined, with an apical transverse yellow fascia on each segment, more or less deeply emargi-

nate on the anterior middle; basal segment much swollen towards the tip, which is convex and somewhat gibbous, the apex rising rather abruptly from the base of the second segment, with a yellow spot on each side, sometimes connected by a yellow line on the apical margin; disk of the apical segment flattened and faintly concave, deeply notched at tip to receive the long recurved black spine which arms the last ventral segment; in one specimen there is a round yellow spot on the basal middle of the last dorsal segment, in the other specimen this segment is immaculate; beneath, segments 2—6 have each a lateral apical yellow spot. Length 6 lines; expanse of wings 10 lines.

Two specimens. Allied to *M. seccincta*, but differs by the smaller size, the hyaline wings, and the longer, more convex and gibbous basal segment of the abdomen; the markings of the two species are much alike. In one specimen the metathorax has a small central yellow dot, as well as a small spot on each side at the extreme base.

### 3. *Myzine confuens*, n. sp.

Black, spotted and banded with yellow; wings pale yellowish-hyaline; four posterior tibiæ ferruginous, covered exteriorly with numerous small subappressed teeth; tarsi setose; apical segment of abdomen finely striated, black margined posteriorly with rufous.

*Female*.—Head black, with sparse deep punctures and thin pale glittering pubescence; the orbits—narrow behind and continued in a narrow line above on the occiput, on the disk of which they are nearly confluent, broad and sinuate in front but not confluent with the line on the outer orbit,—a large central spot just above the base of the antennæ, confluent with the broad inner orbits, and continued upwards for a short distance on the middle of the front, yellow; the yellow markings of the head are so arranged, that the front has two large black spots which become confluent behind, the confluence covering the ocelli; clypeus and labrum testaceous, pubescent; mandibles long, slender, subacute, yellowish-testaceous, black at tips and fringed with long yellowish hairs; antennæ short, stout, the scape rufo-piceous, paler at tips, the flagellum opaque blackish, tinged with obscure rufo-testaceous beneath. Thorax black, clothed with a thin, short, pale glittering pubescence; prothorax rather closely punctured, margined before and behind with yellow, the yellow margin behind narrow and even, that in front dilated on the sides, narrow on the middle, with two emarginations in front, and another on the extreme sides behind; mesothorax almost smooth on the disk which has a rather large subquadrate yellow mark, on each side of which the surface is roughly punctured, a small yellow spot on each extreme side, just behind the



tegulae; scutellum coarsely punctured, with a transverse yellow line; postscutellum also with a transverse yellow line; pleura prominent, closely punctured, with a large, irregular, yellow mark in front and a small rounded spot of the same color behind it; metathorax minutely sculptured, subsericeous, abruptly truncate behind, with a central dot, and a large spot on each side emarginate above, yellow; tegulae also yellow. Wings narrow, pale yellowish-hyaline, very faintly tinged with dusky on the apical margins; nervures honey-yellow. Legs black, with whitish pubescence; tips of the four anterior femora, the anterior tibiae, a line on the middle tibiae in front, a spot on the posterior coxae above, and the upper surface of their femora, yellow; extreme tips of the anterior tibiae, most of the four posterior tibiae above and all the tarsi, dusky ferruginous; the four posterior femora compressed, smooth, polished, and edged beneath; their tibiae depressed above, and covered with dense subappressed, claw-shaped teeth or spines; the tarsi slightly spinose, and fringed with long whitish setae. Abdomen sparsely punctured and shining, pubescent on the sides; first segment with a transverse yellow band, sinuate behind and deeply emarginate on the basal middle; second segment with a large subquadrate yellow mark on each side at base, dilated on each extreme side to the apical margin along which it extends in a very narrow, subobsolete line the whole width of the segment; third segment yellow, with a transverse, slightly undulate, narrow, black band near the apex, not continued to the lateral margin, but with a black dot on each side just above its termination; fourth and fifth segments also yellow, with a transverse black spot on each side; apical segment black, depressed, densely and longitudinally striated, with the apical margin rather broadly rufous and rounded; venter black, shining; the narrow apical margins of the second, third and fourth segments, a spot on each extreme side of the second segment, a broad band at the base of the third segment, interrupted in the middle, and a narrow transverse line on each side at the base of the fourth segment, all yellow. Length 5 lines; expanse of wings  $8\frac{1}{2}$  lines.

One specimen.

Genus **TIPHIA**, Fabr.

1. **Tiphia inornata**. Say.

*Tiphia inornata*, Say, Long's Second Expedition, ii, p. 331.

Two ♂ specimens.

2. **Tiphia tarda**. Say.

*Tiphia tarda*, Say, Bost. Jour. Nat. Hist. i, p. 300.

One ♀ specimen.

3. *Tiphia luteipennis*, n. sp.

Black, shining, clothed with whitish pubescence: wings yellow, apical margins dusky.

*Female*.—Black, shining, sparsely clothed with whitish pubescence; head deeply and rather closely punctured, with a smooth space on the front just beneath the ocelli; mandibles black, polished; antennæ short, stout, convolute, piceous above, rufo-piceous beneath. Thorax depressed above; prothorax deeply and rather closely punctured, its posterior margin impunctured, smooth and polished; mesothorax and scutellum sparsely punctured; pleura protuberant, punctured, with a very large, deep excavation on each side behind; metathorax subopaque, abruptly truncate behind and on the sides, the upper surface minutely sculptured, with three ill-defined, approximated, longitudinal lines on the middle, connecting with a well-defined carina which margins the verge of the posterior truncation; lateral truncations deeply and obliquely striated, the posterior truncation depressed and rugose. Wings bright yellow, with the apical margins rather broadly margined with fuliginous; nervures honey-yellow. Legs black, punctured, clothed with cinereous pubescence, the tarsi piceous or rufo-piceous, especially at tips. Abdomen shining, closely punctured on the sides, more sparsely on the disk of the segments, the apical margins of which are fringed with cinereous pubescence; basal segment contracted at tip, the base truncate and excavated, the verge of the truncation carinate; apical segment depressed and rugose; venter rather closely and deeply punctured. Length 6 lines; expanse of wings 9 lines.

One specimen. Easily recognized by the deep yellow wings.

Genus **SCOLIA**, Latr.

2. *Superior wings with two submarginal cells and one recurrent nervure.*

1. *Scolia Ridingsii*, n. sp.

Ferruginous; sides of prothorax, scutellums, and a large spot on each side of four basal segments of abdomen above, luteous; wings deep yellow, the apical margins broadly fuliginous with a beautiful violaceous reflection, and a dark cloud beyond the marginal cell.

*Female*.—Ferruginous, clothed with fulvous or golden-yellow pubescence, closely and rather deeply punctured; the sinus of the eyes and the outer orbits, sometimes luteous, and in one specimen extending entirely across the occiput; mandibles piceous at tips; antennæ piceous, the two or three basal joints ferruginous. Thorax: sides of the prothorax, a spot on the pleura, scutellum and postscutellum, and a spot on each side of the metathorax, sometimes much reduced, luteous; the scutellums with large, deep, scattered punctures; metathorax short, broad, more finely punctured than the rest of the thorax, abruptly

truncate and somewhat concave behind. Wings: the superior pair deep yellowish-hyaline, the apical margin broadly fuliginous with a beautiful violaceous reflection; beyond the marginal cell a broad blackish cloud extending to the tip of the wing; nervures honey-yellow; posterior wings fuliginous, with a purplish reflection, the base subhyaline. Legs ferruginous, with golden-yellow pubescence, the tibiae tuberculate above, the tarsi spinose. Abdomen sparsely punctured, faintly iridescent; on each side of the four basal segments above a rounded luteous spot, sometimes slightly confluent; the spots on the first and fourth segments smallest, and when confluent, they form a rather broad transverse band; those on the second and third segments are large, the former round and the latter rather transverse; all the segments densely fringed with fulvous pubescence; the apical segment densely clothed with dense, prostrate, fulvous pubescence; venter paler ferruginous, the second and third segments obsoletely stained with obscure luteous, the basal segments deeply contracted. Length 8 lines; expanse of wings  $13\frac{1}{2}$  lines.

Two specimens.

2. *Scolia inconstans*. n. sp.

Obscure ferruginous; head, antennae and most of thorax blackish; sides of prothorax with a large luteous spot; third segment of abdomen with a yellow spot; wings subhyaline, the costa yellowish, with a dark streak beyond the marginal cell.

*Male*.—Head black, with yellowish pubescence; the orbits, more or less interrupted, yellowish; anterior margin of the clypeus, and the mandibles, except tips, luteous; antennae nearly as long as the head and thorax, dull black, somewhat brownish beneath. Thorax blackish, with rather dense, prostrate, yellowish pubescence, and close, rather deep punctures; on each side of the prothorax a large luteous spot; lateral margins of the mesothorax obscure testaceous; pleura sometimes with a ferruginous stain; postscutellum luteous, and sometimes the scutellum is tinged with the same color; metathorax black, sometimes rufo-piceous, on each side a large rufous or ferruginous spot or stain, the posterior face abruptly truncate and somewhat concave; tegulae ferruginous. Wings hyaline, slightly dusky on the broad apical margins, and with a slight violaceous reflection; the costa yellowish especially about the marginal and submarginal cells, and beyond the former a blackish streak extending to the tip of the wing; nervures fuscous. Legs ferruginous, with yellowish pubescence. Abdomen obscure ferruginous, punctured, shining, iridescent, clothed with yellowish pubescence, more dense on the apical margins of the segments; basal

segment rounded at base and more closely punctured than the following segments, the apical margin slightly contracted; third segment with a large, transverse, yellow macula on each side, and the apex of the fourth segment is narrowly margined with yellowish; in one specimen the spots on the third segment are very large, while the two basal segments have a small, obsolete, luteous stain on each side at base, and the fourth segment has an angular yellow mark on each side; the base of the third, fourth and fifth segments are sometimes more or less blackish; the apical segment is armed at tip with three long acute spines, the central one the longest; ventral segments ferruginous, with their base more or less blackish. Length 6—6½ lines; expanse of wings 11—11½ lines.

Two specimens. This species has some resemblance to *S. dubia* Say, in the markings of the third abdominal segment, but is otherwise very distinct.

3. *Scolia amœna*. n. sp.

Black; orbits, two spots on prothorax, postscutellum, two large marks on third segment of abdomen, a broad band on the fourth and a narrow line on the fifth, yellow; most of legs, sides of first and second abdominal segments, and most of the venter dull rufous; wings subhyaline, the costa fuscous.

*Male*.—Black, clothed with short pale pubescence, rather sparsely punctured; orbits, narrow behind, yellowish, indistinct; mandibles rufous at base, antennæ as long as the head and thorax, entirely dull black. Thorax: two small triangular spots on the prothorax in front, and a transverse line on the postscutellum, yellowish; metathorax immaculate, very abrupt behind and concave; tegulæ piceous. Wings subhyaline, the costa broadly fuscous. Legs piceous, with palish pubescence; all the femora more or less rufous. Abdomen robust, black, sparsely punctured, shining, somewhat iridescent; sides of the first and second dorsal segments and the whole of the second ventral, rufous; two large, irregular, almost confluent, yellow marks on the fourth segment above; a broad, yellow band on the fourth segment, scalloped anteriorly, and on the fifth segment a narrow transverse yellow line; apical segment piceous, with three very short, subacute teeth. Length 7 lines; expanse of wings 12 lines.

One specimen. A very handsomely ornamented species.

♀♀. *Superior wings with three submarginal cells and two recurrent nervures.*

4. *Scolia regina*, n. sp.

Black; most of head, base of antennæ, legs and venter, ferruginous; orbits, sides of prothorax, postscutellum, large spot on each side of metathorax, and two large marks on the four basal segments of abdomen, bright yellow; wings

fusco-hyaline, violaceous, costa and base of anterior pair yellowish, a broad blackish streak extending from beneath the first submarginal cell to the tip of the wing.

*Female*.—Head ferruginous; a spot enclosing the ocelli, and the surface about the insertion of the antennæ, blackish; occiput smooth with a rather deep transverse fovea on each side behind the ocelli; vertex prominent, with scattered punctures about the ocelli; the orbits, not reaching the summit of the eyes, yellow; clypeus tinged with yellowish, pubescent, with a transverse row of deep punctures before the apex; the face with tufts of long, dense, golden-yellow pubescence about the insertion of the antennæ; mandibles black at tips and fringed beneath with long yellowish pubescence; antennæ short, piceous-black, the two basal segments ferruginous. Thorax black, shining, with sparse, pale fulvous pubescence; a quadrate yellow spot on each side of the prothorax; mesothorax with large, close, deep punctures, sparse on the disk, which is stained with ferruginous in one specimen; scutellum smooth and polished, with three obscure yellowish spots, but in one specimen the whole scutellum is pale ferruginous; metathorax black, polished on the sides and behind, the upper surface punctured, with a tuft of yellowish-ferruginous pubescence on the disk; on each side above a broad, longitudinal, bright yellow stripe, extending down on the posterior face which is rather abrupt, the sides very abrupt; pleura shining, sometimes with a small ferruginous spot beneath the tegulæ, which is also ferruginous. Wings: superior pair pale fuliginous, the base yellowish, which color extends along the costa to near the tip of the marginal cell, beneath this commences a broad blackish stripe which extends to the tip of the wing; posterior pair fusco-hyaline, pale at base, both wings have a beautiful violaceous reflection, deeper and more brilliant on the blackish stripe of the superior pair. Legs ferruginous, with golden-yellow pubescence; the tibiæ and tarsi spinose; the spurs which arm the apex of the posterior tibiæ long, filiform and obtuse, the inner ones very long, and dilated or somewhat spatulate at tip. Abdomen above black, shining, somewhat iridescent, sparsely punctured, with the apical margins of the segments densely fringed with long ferruginous pubescence; first segment with a broad, transverse bright yellow band, slightly interrupted on the middle, second, third and fourth segments with a large, rounded, bright yellow spot on each side, approximate on the disk; the fifth segment has sometimes four small yellowish spots across the middle; the apical segment has a dense, appressed, golden pubescence; venter entirely ferruginous, except a small yellowish spot on each side of the third segment; the



segments have an apical fringe as above. Length 7 lines; expanse of wings 11 lines.

Two specimens.

5. *Scolia consors*, n. sp.

Black; clypeus, prothorax, scutellums, spot on each side of metathorax, and bands on abdomen, yellow; wings subhyaline, the anterior apical margin blackish, the costa yellowish; legs ferruginous.

*Male*.—Black, sparsely punctured, clothed with yellowish pubescence, dense and long about the insertion of the antennæ; eyes very large; clypeus prominent, yellow, with a blackish spot on the apical middle; mandibles piceous; antennæ as long as the head and thorax, entirely dull black, the scape clothed with yellowish pubescence. Thorax: prothorax with a large quadrate yellow mark on each side, connected by a narrow yellow line on the posterior margin; scutellum, postscutellum and an elongate mark on each side of the metathorax, bright yellow; tegulæ luteous. Wings subhyaline, with a slight metallic reflection; costa yellowish, and beyond the marginal and submarginal cells a broad blackish streak, extending to the tip of the wing; the nervure dividing the first and second submarginal cells with its lower half obliterated. Legs ferruginous, with pale pubescence; coxæ black or piceous-black; tips of the four anterior femora above, their tibiæ externally, and their tarsi, more or less yellow. Abdomen elongate, narrowed towards the base, finely and rather closely punctured, shining, iridescent, sparsely clothed with whitish pubescence, the segments margined at tip with long pale fulvous pubescence; segments 1—5 with a broad, subapical, bright yellow band, those on the first three segments deeply indented on the middle anteriorly, the remainder entire; basal segment narrower than the second, subquadrate, slightly rounded at base; apical segment depressed, clothed with black pubescence, and armed with three long acute teeth, one on each side, and one in the middle, the latter longest and recurved; black, the first segment stained with brownish, the second with a small round yellow spot on each side, the three following segments with a broad yellow band, those on the third and fourth segments emarginate in the middle anteriorly. Length 7 lines; expanse 12 lines

One specimen. May prove to be the ♂ of *S. regina*. It has some resemblance to the ♂ of *S. trifasciata* Fabr.

6. *Scolia flavosignata*, n. sp.

Black, with pale pubescence; clypeus, except a triangular black spot, prothorax, scutellums, and four spots and a band on the abdomen, yellowish; legs mostly ferruginous; wings fusco-hyaline, darker on the costo-apical margin, the costa yellowish.

*Male*.—Form and size of the preceding species; deep black, clothed with pale pubescence, except on the vertex where it is fuscous; eyes very large; a very narrow line on the outer orbits, and the clypeus, except a rather large triangular black spot on the middle, yellowish; mandibles piceous; antennæ entirely dull black. Thorax closely punctured; the prothorax, both scutellums and tegulæ, luteous; metathorax immaculate, truncate behind. Wings fusco-hyaline, with a violaceous reflection; costa yellowish to the tip of the marginal cell, beyond which there is a broad, dark fuscous streak which extends to the tip of the wing. Legs: the coxæ, the anterior femora, and most of the middle femora, black; anterior tibiæ and tarsi and the middle pair exteriorly, yellow; the remainder ferruginous, clothed with pale pubescence. Abdomen shaped like that of the preceding species, except that the basal segment is subrotundate and longer; deep black, shining, iridescent, finely and sparsely punctured, and rather thickly clothed with pale pubescence, that on the apical margins of the segments mixed with black; first segment immaculate; second and third each with a rather large, irregular yellowish, spot on each side; the fourth segment with a transverse sinuate yellowish band, deeply emarginate on the middle anteriorly; the sixth segment with a short, narrow, transverse, yellowish line on the apical middle; apical segment clothed with black pubescence, somewhat tinged with rufous, and armed with three long, acute teeth as in the preceding species; third ventral segment with a small round yellowish spot on each side. Length 7 lines; expanse of wings  $12\frac{1}{2}$  lines.

Two specimens.

### Fam. SAPYGIDÆ.

Genus **SAPYGA**, Latr.

#### ***Sapyga aculeata*, n. sp.**

Black; head and thorax granular, opaque; abdomen shining, with a long, acute, sting-like process at tip; wings subhyaline.

*Female*.—Deep black; head and thorax very densely punctured, or granular, clothed with a fine cinereous pubescence; head large, broader than the thorax; the inner orbits, not extending above the sinus of the eyes, a small spot between the insertion of the antennæ, and an obscure interrupted line on the anterior margin of the prothorax, testaceous; antennæ as long as the head and thorax, slightly thickened towards the apex; prothorax with the anterior lateral angles prominent and subacute. Wings hyaline, tinged with fuliginous, especially at tip, the whole with a violaceous gloss; nervures black. Legs black, shining, with a slight cinereous pile; the tarsi sericeous. Abdomen robust.

polished, somewhat narrowed at base. delicately punctured, the incisures of the dorsal segments rather deeply marked; apex acuminate, slightly pubescent, with a long, slender, acute, dull honey-yellow, sting-like process. Length, including the aculeus, 6 lines; expanse of wings  $7\frac{1}{2}$  lines.

One specimen. Remarkable for the long sting-like process at the apex of the abdomen.

### Fam. POMPILIDÆ.

Genus **POMPILUS**, Latr.

#### 1. **Pompilus Æthiops**, n. sp.

Large; deep black; clypeus deeply emarginate; wings black, violaceous.

*Female*.—Deep black, sometimes with a faint bluish reflection, opaque, immaculate; clypeus rounded on the sides, deeply and obtusely emarginate in the middle anteriorly; antennæ black, the flagellum brownish-sericeous. Thorax gibbous, the posterior margin of the prothorax arcuate; metathorax rounded above, truncate behind, clothed with scattered black pubescence. Wings long, black or very dark fuscous, with a more or less deep violaceous or purplish reflection, the apical margin of both wings darker; second submarginal cell quadrate, slightly oblique, receiving the first recurrent nervure at its tip; third submarginal as long beneath as the second submarginal, but narrowed more than one-half towards the marginal, and receives the second recurrent nervure about the middle. Legs deep velvety-black, sericeous; anterior tarsi ciliated with spines; the four posterior tibiae and tarsi with numerous short spines. Abdomen rather short, convex, sessile or subsessile, deep black, with a slight bluish reflection. Length 8—10 lines; expanse of wings 16—20 lines.

Four specimens.

#### 2. **Pompilus scelestus**, n. sp.

Black, with a faint bluish or purplish reflection; anterior margin of clypeus slightly concave; wings blackish, violaceous.

*Female*.—Deep black, with a more or less faint bluish or purplish reflection, especially observable on the abdomen, immaculate; head with sparse black pubescence; anterior margin of the clypeus slightly concave, finely margined, shining; antennæ brown-black, sericeous; posterior margin of the prothorax angular; metathorax short, obtusely rounded. Wings more or less blackish, with a rather deep violaceous reflection; the apical margins generally darker; second submarginal cell subquadrate, receiving the first recurrent nervure near the tip, the basal transverse nervure rounded inwardly; third submarginal larger than the second, nearly quadrate, only slightly narrowed towards the

marginal, receiving the second recurrent nervure at, or a little before the middle. Legs black; anterior tarsi ciliated, the four posterior tibiae and tarsi spinose. Abdomen sessile or subsessile, with a slight gloss and a more or less obscure bluish or purplish reflection. Length  $5\frac{1}{2}$ —7 lines; expanse of wings 9—12 lines.

*Male*.—Resembles the female, but is more slender, with the bluish or purplish reflection more conspicuous. Length 4—6 lines.

Six ♀, four ♂ specimens.

3. *Pompilus angustatus*. n. sp.

Narrow; deep black, with a slight bluish or purplish reflection; anterior margin of clypeus broadly rounded; wings blackish, subvioletaceous.

*Female*.—Body narrow, subcompressed, deep black, with a slight bluish or purplish reflection in certain lights, sparsely pubescent, immaculate; anterior margin of the clypeus broadly rounded; antennae black, sericeous. Thorax short, gibbous; posterior margin of the prothorax arcuate; metathorax shining, short, obtusely rounded, with a slight longitudinally impressed line, the posterior margin reflexed. Wings long and ample, dark fuliginous, with a more or less deep violaceous reflection, the apical margins generally darker; second and third submarginal cells nearly of equal length, slightly narrowed towards the marginal, especially the third, which is rather larger than the second. Legs black, sericeous, the tibiae and tarsi spinose. Abdomen rather elongate, narrow, sessile, somewhat shining. Length 5— $5\frac{1}{2}$  lines; expanse of wings 10—11 lines.

*Male*.—Resembles the female, with the face longer, the anterior margin of the clypeus subtruncate, the body more velvety and the legs less spinose.

Two ♀, one ♂, specimens. Resembles the preceding species in color, but the form is much narrower and more slender, and the wings longer.

4. *Pompilus luctuosus*, n. sp.

Deep black, shining; anterior margin of clypeus broadly concave; wings fuliginous, violaceous, the apical margins darker.

*Female*.—Deep black, rather shining, sometimes with a faint bluish reflection, immaculate; anterior margin of the clypeus broadly concave, distinctly margined; antennae black, sericeous; posterior margin of the prothorax angular; metathorax rounded above, abrupt behind. Wings more or less fuliginous, with a violaceous reflection, the apical margins darker, the posterior wings subhyaline at base; second submarginal cell quadrate, rather smaller than the third, receiving the first recurrent nervure at or near the tip; third submarginal slightly narrowed towards the marginal. Legs opaque black, slightly spinose. Abdomen

subsessile, convex, sometimes with a faint bluish reflection. Length 5 lines; expanse of wings  $8\frac{1}{2}$  lines.

Four specimens. Allied to *P. scelestus*, but is smaller, more shining, wings paler, and the legs less spinose.

5. *Pompilus tenebrosus*, n. sp.

Deep black, shining, with a slight purplish reflection; anterior margin of clypeus truncate; wings fuscous, third submarginal cell petiolated.

*Female*.—Deep black, with a slight purplish reflection in certain lights, shining, immaculate; anterior margin of the clypeus truncate; antennæ brown-black, sericeous; posterior margin of the prothorax arcuate; metathorax opaque, rounded. Wings fuscous, the apical margins darker, with a slight violet reflection; marginal cell rather short, acute at tip; second submarginal cell oblique, the third petiolated. Legs black, sericeous, spinose. Abdomen convex, shining, sessile or subsessile. Length 5 lines; expanse of wings 9 lines.

Two specimens. Much like the preceding, but easily recognized by the petiolated submarginal cell of the superior wings.

6. *Pompilus arctus*, n. sp.

Black, elongate, slender; anterior margin of clypeus concave; wings slightly fuliginous, darker on the apical margins.

*Female*.—Body narrow, cylindrical, elongate, deep black, somewhat shining, immaculate; face with a slight cinereous pile; anterior margin of the clypeus concave; antennæ long, thickened at base and gradually attenuated to the tip, black, subsericeous; posterior margin of the prothorax angulate; metathorax rounded, slightly depressed on the disk. Wings narrow, tinged with fuliginous, much darker on the apical margin, with a rather strong violaceous reflection; second submarginal cell quadrate, the third much larger and narrowed towards the marginal. Legs black, somewhat shining, scarcely spinose. Abdomen elongate, cylindrical, nearly sessile, somewhat shining. Length 4 lines; expanse of wings  $6\frac{1}{2}$  lines.

One specimen. Easily recognized by the narrow, cylindrical form; belongs to the subgenus *Agenia*.

7. *Pompilus parvus*, n. sp.

Black, with a beautiful green and blue reflection; anterior margin of clypeus rounded; wings blackish.

*Female*.—Black, subopaque, immaculate; head and thorax with a deep greenish reflection; anterior margin of the clypeus broadly rounded; antennæ deep black, subsericeous; posterior margin of prothorax slightly arcuate; metathorax abrupt behind, with a rather deep, longitudinal, central line. Wings fuliginous, slightly violaceous, apical margins darker, posterior wings subhyaline; marginal cell obliquely



pointed at tip; second submarginal subquadrate, the third rather larger and narrowed towards the marginal. Legs black, spinose; the femora and tibiæ tinged with bluish, the tarsi with brownish. Abdomen short, robust, with a deep bluish reflection. Length 3 lines; expanse of wings 6 lines.

One specimen.

8. *Pompilus terminatus*, Say.

*Pompilus terminatus*, Say, American Entomology, Plate 42.

One ♀ specimen. The figure given by Mr. Say, of this insect, conveys little or no idea of its natural appearance. The body is deep black, immaculate, with the wings yellow, broadly margined at tip with fuliginous; the specimen before me is 6 lines long, and 10 lines expanse of wings.

9. *Pompilus marginatus*, Say.

*Pompilus marginatus*, Say, Long's Second Expedition, ii, p. 333.

One ♀ specimen.

10. *Pompilus nigripes*, n. sp.

Purplish-brown; three basal segments of abdomen ferruginous, apex piceous; legs and antennæ black; wings fuliginous, with an obscure cloud near the tip; four posterior tibiæ serrate.

*Female*.—Robust, sparsely pubescent; head and thorax uniform purplish-brown, opaque; anterior margin of the clypeus black, truncate; tips of mandibles piceous; antennæ brown-black, sericeous; sutures of the thorax blackish; posterior margin of prothorax angular; metathorax rounded above, abrupt behind, the disk with a very finely impressed longitudinal line. Wings fuliginous, the nervures bordered with darker fuliginous; the marginal cell, a streak through the second and third submarginal cells and a large spot in the second discoidal cell, dark fuliginous; third submarginal cell larger than the second and slightly narrowed towards the marginal; posterior wings subhyaline. Legs black, somewhat tinged with brownish especially the tarsi; four posterior tibiæ serrate, and with a double row of short acute spines. Abdomen short, very robust, shining, sessile; the three basal segments orange-ferruginous, darker on the apical margins; remaining segments piceous, paler on the apical margins, the apex pubescent. Length  $5\frac{1}{2}$  lines; expanse of wings 9 lines.

One specimen. Belongs to the subgenus *Prionemis*.

Genus **CEROPALES**, Latr.

*Ceropales fraterna*, Smith.

*Ceropales fraterna*, Smith, Brit. Mus. Cat. iii, p. 180.

One specimen. Differs from Mr. Smith's description only by the clypeus having a large black spot on the disk.

## Fam. SPHEGIDÆ.

Genus **AMMOPHILA**. Kirby.*♀. Abdomen with the petiole and first segment elongate and slender.*1. **Ammophila ferruginosa**, n. sp.

Ferruginous; disk of metathorax longitudinally black; pleura with dense silvery-sericeous pile; wings hyaline or yellowish-hyaline.

*Female*.—Uniform ferruginous, shining; the face, pleura, sides of metathorax and base of legs with a dense, very fine, silvery pile; head indistinctly punctured, with a longitudinal depression behind the antennæ; clypeus large, rather prominent, with a few large scattered punctures and sometimes a central longitudinal impressed line, the anterior margin somewhat rounded, entire; mandibles black at tips and, as well as the cheeks, fringed with long whitish pubescence; the ocelli enclosed by a black spot; antennæ black, the three basal joints ferruginous; pro- and mesothorax covered with fine dense transverse striæ, and with a central longitudinal impressed line, deep and blackish on the mesothorax, and subobsolete on the prothorax; pectus, tubercles, pleura, and sides and tip of metathorax, covered with a dense silvery pile; pleura sparsely punctured; scutellum somewhat rugose, black at base and on the sides; metathorax obliquely striated, with a more or less broad, central, longitudinal, black stripe. Wings short, hyaline, more or less tinged with yellowish, the apical margins a little dusky. Legs ferruginous; the coxæ silvery; the four posterior coxæ and femora above with a black line. Abdomen ferruginous, smooth and shining; the incisure between the petiole and first segment, and a spot on the apical middle of the fifth and sixth segments, black. Length  $8\frac{1}{2}$ — $9\frac{1}{2}$  lines; expanse of wings 8— $9\frac{1}{4}$  lines.

Four specimens. Easily recognized by the color being almost entirely ferruginous.

2. **Ammophila pruinosa**, n. sp.

Black, densely covered with a fine silvery-cinereous pile: most of legs and abdomen ferruginous; wings hyaline.

*Female*.—Black; head, pectus, pleura, metathorax except the enclosed space, and the base of the legs, densely covered with a fine silvery-cinereous pile, very brilliant in some specimens; mandibles ferruginous, sometimes rufo-testaceous, black at base and apex; palpi and sometimes the clypeus anteriorly, ferruginous; the face, clypeus and cheeks silvery; antennæ dull black, the basal joint more or less ferruginous at tip; pro- and mesothorax rather closely punctured, somewhat rugose, the former clothed with a rather dense cinereous pile, the mesothorax almost naked, with a deeply impressed central longitudinal line;

scutellum rugose; enclosed space of metathorax black, sometimes cinereous on the middle, with very fine dense oblique striæ; tegulæ ferruginous. Wings hyaline, the nervures fuscous, ferruginous at base, the apical margins slightly dusky. Legs ferruginous, slightly pruinose; the four posterior coxæ, trochanters, and femora above, and sometimes their tibiæ within, black. Abdomen ferruginous, slightly pruinose; the first segment above, the fifth more or less, and sometimes the petiole above, black; beneath entirely ferruginous. Length 7—8½ lines; expanse of wings 8—10 lines.

*Male*.—Resembles the female, but is more slender, the thorax more hairy, the face narrower and bright silvery, the clypeus, mandibles, palpi and antennæ entirely black, the legs more pruinose and with the black on the femora more extended, the tarsi blackish towards the tips, and the petiole entirely, the first segment above, a line on the basal third of the second segment above, and the two or three apical segments entirely, black. Length 6½—8 lines; expanse of wings 6½—8½ lines.

Ten ♀, three ♂ specimens. The pile on the thorax is sometimes very brilliant.

### 3. *Ammophila collaris*, n. sp.

Ferruginous; head, mesothorax, pleura, disk of metathorax, tarsi and apex of abdomen, black; wings hyaline.

*Male*.—Ferruginous; head black, the face rather broad, and densely covered with silvery pile; clypeus emarginate; mandibles ferruginous, black at tips; palpi luteous, the basal and terminal joints dusky; antennæ black, the basal joint reddish at tip beneath. Thorax: prothorax transversely aciculate, ferruginous, with a triangular black mark on the anterior middle superiorly; mesothorax transversely striated, black, with a ferruginous mark on each side over the tubercles; scutellum black, longitudinally striated; tubercles ferruginous and covered with dense whitish pile; pleura blackish, densely cinereous-pruinose; metathorax ferruginous, also cinereous-pruinous, the enclosed disk black and covered with dense, fine, oblique striæ; tegulæ ferruginous. Wings hyaline, the apical margins dusky. Legs ferruginous, slightly pruinose; the four posterior coxæ and trochanters behind, a line on their femora above, and all the tarsi except extreme base, black. Abdomen slender, ferruginous, base of the first segment, and the two or three apical segments, black. Length 7½ lines; expanse of wings 7 lines.

One specimen. A beautiful and distinct species.

**4. *Ammophila varipes*, n. sp.**

Black; tegulae, four anterior legs except base, and the abdomen except base and apex, rufous; wings subhyaline.

*Female*.—Black; head and thorax clothed with cinereous pubescence, dense on the face, tubercles, posterior margin of pleura and sides of metathorax; mandibles and antennae entirely black. Thorax rather closely punctured; metathorax with the enclosed space rugose on the middle and obliquely aciculate on the sides; tegulae ferruginous. Wings subhyaline, slightly tinged with honey-yellow, the apical margins pale fuliginous, with a faint violaceous reflection; nervures fuscous, honey-yellow at base and along the costa. Legs slightly pruinose, the two anterior pairs ferruginous, black at base; the posterior pair entirely black, except the base of the tibiae which is obscure ferruginous. Abdomen ferruginous; the petiole, and the fourth and fifth segments above, black. Length  $9\frac{1}{2}$  lines; expanse of wings 11 lines.

*Male*.—Resembles the female, but rather more slender; the face narrower and densely clothed with silvery-cinereous pubescence; the clypeus emarginate, and the thorax more densely pubescent; the petiole, the first segment of the abdomen above, and the fourth and following segments above are more or less black; the posterior margin of the third segment is sometimes black, and the ferruginous color of the abdomen is often tinged with yellowish. Length  $8\frac{1}{2}$ — $9\frac{1}{2}$  lines; expanse of wings 9— $10\frac{1}{2}$  lines.

One ♀, ten ♂ specimens.

**5. *Ammophila extremitata*, n. sp.**

Deep black; abdomen, except petiole and spot on apical segments, yellowish-ferruginous; wings fusco-hyaline.

*Female*.—Deep opaque black, glabrous, the face and cheeks with sparse black pubescence; clypeus flattened, shining, with a few scattered punctures, the anterior margin broadly rounded, the face rather deeply excavated about the insertion of the antennae; antennae and mandibles entirely black. Thorax finely shagreened and with scattered punctures; prothorax slightly notched above, the mesothorax with a central longitudinal impressed line and a lateral depression; metathorax opaque, densely covered with fine oblique striae; tegulae piceous. Wings vary from subhyaline to fuliginous, but generally fusco-hyaline; apical margins darker; sometimes the wings have a yellowish tinge. Legs black, slightly pruinose, with scattered black pubescence; tarsi more or less piceous. Abdomen shining, yellowish-ferruginous; a large black blotch on the apex above, and generally the petiole is more or less blackish or piceous. Length  $6\frac{3}{4}$ —9 lines; expanse of wings 8—10 lines.

Eight ♀ specimens. A very distinct species, readily recognized by the deep black head and thorax, almost entirely destitute of pubescence. The form is more robust than usual.

6. *Ammophila polita*, n. sp.

Black, subargenteous; mandibles and tarsi piceous; abdomen, except base and apex, ferruginous; wings subhyaline.

*Female*.—Black; the face, cheeks, thorax beneath the wings, metathorax except disk, and the legs more or less densely clothed with silvery-cinereous pile; mandibles piceous, rufo-piceous in the middle; clypeus slightly prominent, with scattered punctures; antennæ entirely black. Thorax opaque, the pro- and mesothorax with transverse, rugulose striæ; scutellum with coarse longitudinal striæ, and the enclosed space of the metathorax glabrous, obliquely aciculate; tegulæ piceous, shining. Wings sub- or fusco-hyaline, slightly darker on the apical margin. Legs black; the coxæ silvery-cinereous; tarsi piceous. Abdomen shining, ferruginous, the base of first segment and a more or less extended blotch on the apical segments above, black. Length 7 lines; expanse of wings 7 lines.

Two specimens. Closely allied to the preceding species, but easily distinguished by the silvery-cinereous pile of the head and thorax, and by the general sculpture.

7. *Ammophila vulgaris*, n. sp.

Black, with silvery-cinereous pubescence, more dense on the tubercles, posterior margin of pleura, sides of metathorax, and on the face in ♂; wings subhyaline; first, second and sometimes the third segments of abdomen ferruginous; abdomen sericeous in the ♂.

*Female*.—Black, subopaque, clothed with fine silvery-cinereous pubescence, more dense on the tubercles, posterior margin of pleura, and sides and tip of metathorax; head and thorax with sparse, rather fine punctures; clypeus slightly prominent; mandibles and antennæ entirely black; enclosed space of metathorax obliquely striated; tegulæ piceous. Wings varying from hyaline to fuscous, with the apical margins darker. Legs black, slightly pruinose, the coxæ and trochanters silvery-cinereous, the tarsi sometimes piceous. Abdomen slightly sericeous; the first, second, and often the third, more or less ferruginous; petiole always black. Length 7–9 lines; expanse of wings 8½–10½ lines.

*Male*.—More slender than the female, with the face silvery, and the abdomen with a more or less brilliant cinereo-sericeous pile, very fine and more obvious in certain lights; sometimes the sides of the fourth segment is ferruginous. Length 7–8½ lines.

Twenty ♀, eighteen ♂ specimens.



8. *Ammophila mediata*, n. sp.

Deep black; head with black, thorax with obscure cinereous pubescence: first and second segments of abdomen ferruginous: wings hyaline, apical margins dusky.

*Female*.—Robust, deep black, shining; head broad, clothed with sparse black pubescence; clypeus large, the apical margin broadly rounded; mandibles and antennæ entirely black. Thorax: pro- and mesothorax indistinctly sculptured, the latter with a well impressed central, longitudinal line; scutellum subrugose; pleura and metathorax with short, obscure cinereous pubescence, the enclosed space of the latter much depressed, shining and obliquely striated, and on each side of the apex a spot of dense cinereous pubescence; tegulæ shining black. Wings hyaline or subhyaline, with the apical margins more or less dusky; nervures blackish. Legs slightly pruinose, with sparse black pubescence; tarsi piceous. Abdomen rather robust, black, with a faint tinge of blue; the first, except base, and the second segment entirely, rufo-ferruginous; the tip of the second segment is sometimes infuscated. Length  $8\frac{1}{2}$ — $9\frac{1}{2}$  lines; expanse of wings 10— $10\frac{1}{2}$  lines.

*Male*.—Resembles the female, but much more slender, with the face narrower, densely clothed with silvery pubescence, and the antennæ longer. Length 8 lines.

Six ♀, three ♂ specimens. Closely resembles the preceding species, but the form is more robust, and the pubescence of the head is entirely black.

9. *Ammophila Gryphus*, Smith.

*Ammophila Gryphus*, Smith, Brit. Mus. Cat. Hym. iv, p. 222.

One ♀ specimen. In this specimen the first segment of abdomen, except base, the second entirely, and the third, except a large triangular black mark covering nearly the entire upper surface, are rufo-ferruginous; the pro- and mesothorax are not so deeply striated transversely. It is scarcely more than a variety.

10. *Ammophila strenua*, n. sp.

Large, black; tubercles, posterior margin of pleura, and a spot on each side of metathorax at tip, silvery; wings subhyaline, margins fuliginous; first, second and third segments of abdomen ferruginous.

*Female*.—Robust, black; head broad, clothed with long, sparse, black hairs; clypeus flattened; mandibles and antennæ entirely black, the latter subsericeous; the cheeks and face have a very fine, silvery-cinereous pile, more obvious in certain lights. Thorax very finely and indistinctly sculptured; the pleura and metathorax clothed with a short cinereous pubescence; the tubercles, an oblique line on the pleura posteriorly, and a spot on each side of metathorax at tip, silvery; meso-

thorax with the dorsal line deeply impressed; scutellum sparsely punctured, with a slight depression on the disk; metathorax closely and finely punctured, the enclosed space covered with very fine oblique striæ; tegulæ shining black. Wings hyaline, tinged with fuliginous, the apical margins fuliginous. Legs black, rather densely clothed with a very fine silvery-cinereous pile, brilliant on the coxæ; tarsi somewhat piceous. Abdomen elongate, robust at tip, black, subsericeous; the first segment, except base, and the second and third segments entirely, bright ferruginous. Length  $11\frac{1}{2}$  lines; expanse of wings  $13\frac{1}{2}$  lines.

One specimen.

11. *Ammophila macra*, n. sp.

Large, slender, black; sides of the first, and the lateral margins of the second and third segments, ferruginous; pro- and mesothorax transversely striated; wings subhyaline.

*Male*.—Elongate, very slender, black; head clothed with black pubescence, the face silvery; clypeus obtusely emarginate; mandibles and antennæ entirely black, the latter sericeous. Thorax: pro- and mesothorax covered with coarse transverse striæ, the scutellum with coarse longitudinal striæ; pleura and metathorax rugose, clothed with cinereous pubescence, more dense and silvery on the tubercles, and posterior margin of pleura; enclosed space of metathorax rugose on the disk, and obliquely striated on each side; tegulæ shining black. Wings hyaline or subhyaline, with the apical margins darker. Legs black, pruinose, the coxæ silvery, the tibiæ sericeous within, the tarsi somewhat piceous. Abdomen elongate and very slender, compressed, black, shining, subsericeous; sides of the first and the lateral margins of the two following segments, more or less ferruginous; the petiole long and slender, black and polished. Length 11—12 lines; expanse of wings  $10\frac{1}{2}$ — $13\frac{1}{2}$  lines.

Four specimens. Easily recognized by the elongate, very slender form, and the coloration of the abdomen.

12. *Ammophila juncea*, n. sp.

Elongate, slender, black; head and thorax densely clothed with silvery-cinereous pubescence; sides of the first and second segments of abdomen, and lateral margins of the third, ferruginous; wings hyaline, subviolaceous; pro- and mesothorax almost smooth, shining.

*Male*.—Elongate, slender, black; head and thorax densely clothed with silvery-cinereous pubescence, more dense on the face, tubercles posterior margin of pleura and tip of metathorax; clypeus emarginate; mandibles and antennæ entirely black. Thorax finely and closely punctured, the pro- and mesothorax almost smooth, shining, the latter with

a slightly impressed longitudinal central line; scutellum punctured, channelled down the middle; enclosed space of the metathorax very finely and transversely aciculate, flattened, without pubescence; remainder of the metathorax as well as the pleura, with rather dense silvery-cinereous pubescence; tegulae shining black. Wings hyaline, with a slight violaceous reflection; apical margins dusky. Legs black, pruinose, the coxae silvery, the tarsi piceous. Abdomen elongate, slender, black, subsericeous; the first and second segments, except a black line on the upper edge, and the lateral margins of the third segment, bright ferruginous; petiole long and slender, piceous towards the tip. Length 10 lines; expanse of wings 11 lines.

One specimen. Closely allied to *A. macra*, but smaller, with the pro- and mesothorax smooth and shining, and not transversely striated.

♀♀. First segment of abdomen short and dilated; petiole slender and cylindrical.

13. *Ammophila valida*, n. sp.

Large, robust, black; abdomen, except petiole, ferruginous; wings yellowish-fuscous.

*Female*.—Large robust, deep black, shining, clothed with short, sparse, black pubescence; head large, broad, closely punctured; clypeus large, margined anteriorly, with two distant, rather large, obtuse teeth, and several smaller ones between them; mandibles and antennae entirely black. Thorax closely and strongly punctured, deeper on the pleura; sides of the prothorax striated; tubercles polished; sides of mesothorax posteriorly, rather deeply grooved longitudinally, as well as a well-impressed central line; scutellum punctured, depressed on the disk; metathorax large, opaque, rugose, the inclosed space obliquely rugose; tegulae black, shining, broadly margined behind with testaceous. Wings yellowish-fuscous, darker and subviolaceous on the apical margins. Legs robust, black, shining, spinose, the tarsi piceous. Abdomen ovate, robust, entirely ferruginous; the petiole rather short, black. Length 10 lines; expanse of wings  $15\frac{1}{2}$  lines.

Two specimens. A large robust species, having much the general appearance of a large specimen of *Priononyx Thomæ*.

14. *Ammophila robusta*, n. sp.

Robust, black; first, second, third and part of fourth segments of abdomen, ferruginous; wings subhyaline, violaceous, apical margins fuliginous.

*Female*.—Robust, deep black, shining, with black pubescence; head closely punctured; anterior margin subtruncate. Thorax: pro- and mesothorax sparsely punctured, shining; pleura closely punctured, subopaque; metathorax opaque, finely rugose, transversely aciculate above; tegulae shining black. Wings hyaline, more or less tinged with

fuliginous, violaceous, especially on the apical margins which are broadly dark fuliginous; posterior wings hyaline, the apical margin broadly fuliginous. Legs black, shining, spinose, tarsi piceous. Abdomen ovate, robust, petiole short; the first, second, third, and the anterior half or two-thirds of the fourth segment, bright ferruginous; the petiole and rest of abdomen, black. Length  $8\frac{1}{2}$  lines; expanse of wings 11 lines.

Eight specimens.

15. *Ammophila communis*, n. sp.

Black; head and thorax with rather dense black pubescence: first, second, and sometimes the third and fourth segments of abdomen, ferruginous: wings hyaline, dusky at tip; petiole of abdomen long.

*Male*.—Deep black; head and thorax rather densely clothed with black pubescence, and closely and finely punctured; face silvery; mandibles and antennæ entirely black, the latter subsericeous; mesothorax with a well-impressed central longitudinal line; pleura and metathorax clothed with cinereous pubescence, slightly mixed with black; metathorax rugose, the enclosed space also rugose, scarcely striated; tegulæ shining black. Wings hyaline, subviolaceous, sometimes more or less tinged with fuliginous; apical margins broadly fuliginous. Legs entirely black, slightly pruinose, the tarsi sometimes piceous. Abdomen subcompressed, often more or less sericeous; the first, second and basal half of the third segment, bright ferruginous; sometimes the whole of the third and basal half of the fourth segments are ferruginous. Length 6—8 lines; expanse of wings 8—11 lines.

Forty ♂ specimens. This may be the ♂ of the preceding species, but in this species the pubescence of the pleura and metathorax is cinereous, while in *robusta* it is entirely black.

16. *Ammophila luctuosa*, Smith.

*Ammophila luctuosa*, Smith, Brit. Mus. Cat. Hym. iv, p. 224.

Twenty-six ♀ specimens. The wings vary from smoky-hyaline to dark fuscous, with a more or less violaceous reflection, and the abdomen has often a beautiful bluish tinge. It also varies much in size.

17. *Ammophila argentifrons*, n. sp.

Black, slightly tinged with bluish; face, legs, and abdomen in certain lights, silvery-sericeous; wings subhyaline, violaceous.

*Male*.—Deep black, often with a more or less deep blue or violet reflection; face broad, densely clothed with appressed silvery pile, the rest of the head with rather long and black pubescence; anterior margin of clypeus broadly subtruncate; mandibles and antennæ black. Thorax closely and strongly punctured, rather thickly clothed with

black pubescent; metathorax densely rugose or granular; tegulae shining black. Wings hyaline or subhyaline, with a more or less deep violaceous reflection, the apical margins broadly fuliginous. Legs black, rather densely covered with a very fine cinereous pile. Abdomen often strongly tinged with blue or purple, the upper surface covered with a more or less brilliant silvery-sericeous pile, more obvious in certain lights; petiole long and slender. Length  $6\frac{1}{2}$  lines; expanse of wings 9 lines.

Twenty ♂ specimens. May be the ♂ of *A. luctuosa* Smith.

Genus **PELOPÆUS**, Latr.

1. *Pelopæus cæruleus*, Linn.

*Sphex cærulea*, Linn. Syst. Nat. i, p. 941.

*Sphex cyanea*, Fabr. Ent. Syst. ii, p. 201. DeGeer, Ins. iii, p. 589, pl. 30, fig. 6.

*Pepsis cyanea*, Fabr. Syst. Piez. p. 211.

*Chalybion cyaneum*, Dahlb. Hym. Europ. i, p. 22.

*Pelopæus cæruleus*, St. Farg. Hym. iii, p. 320.

Three specimens.

2. *Pelopæus flavipes*, Fabr.

*Sphex flavipes*, Fabr. Ent. Syst. ii, p. 202.

*Pelopæus flavipes*, Fabr. Syst. Piez. p. 204.

*Pelopæus architectus*, St. Farg. Hym. iii, p. 313. Var.

Twenty specimens. The petiole of the abdomen varies from entirely black, through piceous and fuscous, to entirely bright yellow.

Genus **CHLORION**, Latr.

*Chlorion cæruleum*, Drury.

*Sphex cærulea*, Drury. Exot. Ins. ii, p. 75, pl. 39, fig. 8.

*Chlorion cyaneum*, Dahlb. Hym. Europ. i, p. 24.

One specimen, with a brilliant blue and violet reflection.

Genus **SPHEX**, Fabr.

*Sphex læviventris*, n. sp.

Large, robust, entirely deep black, shining; abdomen smooth and polished; wings fusco-hyaline, subviolaceous.

*Female*.—Large, very robust, entirely deep black, shining, sparsely clothed with black pubescence; clypeus indented on each side anteriorly, with a central truncated process; mandibles very large and deeply grooved; antennæ black, sericeous. Thorax above smooth and shining; pleura finely sculptured; metathorax subopaque, and covered with dense, very fine, transverse striæ, regularly rounded and obtuse behind; tegulae shining black. Wings vary from subhyaline to fuliginous, often tinged with yellowish-fuscous, and with a more or less deep violaceous reflection; apical margins fuliginous; nervures black. Legs black, very robust, shining; tibiæ sparsely, and the tarsi densely spinose, the anterior pair ciliated with long slender spines. Abdomen large, ovate.



convex, very robust, smooth and polished, the petiole short and robust. Length 12—14 lines; expanse of wings 19—20 lines.

*Male*.—Resembles the female, but much smaller, the face narrower and more or less covered with a fine silvery-cinereous pile. Length  $8\frac{1}{2}$ — $10\frac{1}{2}$  lines; expanse of wings 12—16 lines.

Six ♀, ten ♂ specimens. A fine large species, easily recognized by the entirely black color and the smooth, polished abdomen.

Genus **PRIONONYX**, Dahlb.

1. **Priononyx Thomæ**, Fabr.

*Sphex Thomæ*, Fabr. Ent. Syst. ii. p. 199.

*Pepsis Thomæ*, Fabr. Syst. Piez. p. 209.

*Priononyx Thomæ*, Dahlb. Hym. Europ. i. p. 28.

Five ♀, nine ♂ specimens.

2. **Priononyx atrata**, St. Farg.

*Sphex atrata*, St. Farg. Hym. iii. p. 355.

*Priononyx atrata*, Smith, Brit. Mus. Cat. Hym. iv. p. 266.

Four specimens.

Fam. LARRIDÆ.

Genus **LARRADA**, Smith.

♂.—*Abdomen red, or red and black.*

1. **Larrada tarsata**, Say.

*Larra tarsata*, Say, West. Quar. Rep. ii. p. 78.

Two ♀ specimens. The abdomen, in these two specimens, is shining but not polished, and the color is bright ferruginous; the body and legs have a more or less obvious silvery-cinereous pile; in one specimen the tarsi have only the basal joint black, the remainder ferruginous.

2. **Larrada semirufa**, n. sp.

Black; abdomen and tarsi, except two basal joints, rufous; wings hyaline or subhyaline; abdomen polished.

*Female*.—Black; head, thorax and legs covered with a very fine silvery cinereous pile, more obvious in certain lights; face silvery; middle of clypeus prominent and polished; mandibles piceous, shining; antennæ piceous-black, sericeous; mesothorax and scutellum shining, closely and finely punctured; pleura and metathorax subopaque, sericeous, the latter densely and very finely granular; tegulæ shining black. Wings hyaline, sometimes more or less tinged with fuliginous; nervures black. Legs black, or piceous-black, sericeous, spinose; tarsi, except two basal joints, ferruginous, sometimes dusky. Abdomen rather short, entirely rufo-ferruginous, polished. Length 3—4 lines; expanse of wings 5—7 lines.

Three specimens. Smaller than *L. tarsata* Say, from which it is

distinguished by the broader vertex and the polished abdomen. The two species are very closely allied, and I am still somewhat undecided as to which is the true *tarsata* of Say, as his short description applies to both species excepting the size, which alone has guided me in their determination.

3. *Larrada montana*, n. sp.

Black; three basal segments of abdomen rufous; wings subhyaline; tarsi brown.

*Female*.—Black; head shining, the face silvery; mandibles and antennæ piceous-black, the latter subsericeous. Thorax closely and very finely punctured; mesothorax and scutellum shining; pleura and metathorax opaque, with a more or less obvious cinereo-sericeous pile; tegulæ brown. Wings sub- or fusco-hyaline; nervures black. Legs black, shining, slightly pruinose; tarsi brown, paler at tips. Abdomen shining, subsericeous; the three basal segments rufo-ferruginous, the rest black. Length  $4\frac{1}{2}$ —6 lines; expanse of wings  $7\frac{1}{2}$ — $9\frac{1}{2}$  lines.

Six specimens.

4. *Larrada parvula*, n. sp.

Black; abdomen ferruginous, blackish at tip; tarsi brownish; wings subhyaline.

*Male*.—Black, opaque, clothed with a very fine, more or less dense, silvery-cinereous pile, more brilliant on the face; mandibles piceous; tegulæ testaceous. Wings subhyaline, nervures fuscous. Legs piceous-black, slightly pruinose; tarsi brown, paler at tips. Abdomen shining, ferruginous, sericeous, the three or four apical segments blackish or dusky. Length 3— $3\frac{1}{4}$  lines; expanse of wings  $4\frac{1}{2}$ —5 lines.

Three specimens. Closely resembles the preceding species in coloration, and may possibly be the male of it; but the difference in size, I should judge, is too great.

♀♀.—*Abdomen black.*

5. *Larrada Æthiops*, n. sp.

Deep black, shining; wings fuscous, violaceous; tips of tarsi brown.

*Female*.—Entirely deep black, shining, very minutely punctured; antennæ subsericeous. Thorax: prothorax much depressed; disk of mesothorax with a broad, shallow longitudinal channel; metathorax opaque, with a slight cinereous pile; tegulæ black. Wings fuscous, deep violaceous, subhyaline at base. Legs black, shining; tips of tarsi brown. Abdomen elongate, acuminate, entirely black, shining, and when viewed sideways, with a beautiful, more or less distinct, silvery reflection. Length 6—7 lines; expanse of wings 9— $10\frac{1}{2}$  lines.

Two specimens.

6. *Larrada argentata*, Beauv.

*Larra argentata*, Beauv. Ins. Afric. et Amér. p. 119, pl. 3, fig. 9.

*Lyrops argentata*, Say, Bost. Journ. i. p. 370.

*Larrada argentata*, Smith, Brit. Mus. Cat. Hym. iv, p. 292.

One ♀ specimen.

Genus **TACHYTES**, Panz.1. *Tachytes pepticus*, Say.

*Lyrops peptica*, Say, Bost. Journ. i. p. 371.

*Tachytes pepticus*, Smith, Brit. Mus. Cat. Hym. iv, p. 308.

Two ♀ specimens.

2. *Tachytes fulviventris*, n. sp.

Black, densely clothed with a golden sericeous pubescence; abdomen fulvous, blackish at tip; wings hyaline; tarsi brown.

*Female*.—Black; face, cheeks, thorax and most of legs, densely clothed with a golden-sericeous pubescence, more brilliant in certain lights and especially so on the face; mandibles silvery at base; antennae piceous-black; tegulae testaceous. Wings hyaline; nervures honey-yellow. Legs black, sericeous; tibiae and tarsi spinose, brownish, densely covered with a golden-sericeous pile. Abdomen short, broad ovate, fulvous, subopaque; apical margins of the four basal segments with a golden sericeous band, more obvious in certain lights; three apical segments blackish, the terminal one rufo-fulvous above. Length  $7\frac{1}{2}$  lines; expanse of wings 12 lines.

One specimen.

Genus **ASTATA**, Latr.1. *Astata nubecula*, n. sp.

Black; three basal segments of abdomen ferruginous; wings hyaline, with a fuscous cloud about the middle; metathorax finely rugose.

*Male*.—Black, clothed with a fine fuscous pubescence; eyes very large and meeting on the vertex; cheeks densely pubescent; tips of mandibles piceous; antennae nearly as long as the head and thorax. Thorax closely and finely punctured, shining, especially the mesothorax and scutellum, where the punctures are more sparse, scarcely perceptible on the scutellum; metathorax very finely rugose, obliquely striated under a strong lens, abruptly truncate behind, the posterior truncations fringed with dense fuscous pubescence; tegulae piceous. Wings hyaline, slightly iridescent, the anterior pair with a large yellowish-fuscous cloud beneath the stigma, covering the marginal, submarginal and discoidal cells; nervures fuscous. Legs shining black, with fuscous pubescence, especially on the femora beneath; tips of tarsi piceous. Abdomen short, subconical, shining, black; the first, second and most of the third segment bright ferruginous; the first segment with a large, black, circular depression on its anterior face; apical segments piceous-black;

venter clothed with fine fuscous pubescence. Length 5 lines; expanse of wings  $8\frac{1}{2}$  lines.

One specimen. Comes very near to Say's description of *A. bicolor*, but the wings of the present species have a fuscous cloud, and the metathorax is very finely sculptured and not with "crowded, dilated, superficial punctures."

2. *Astata unicolor*, Say.

*Astata unicolor*, Say, Long's Second Expedition, ii, p. 337. Smith, Brit. Mus. Cat. Hym. iv, pl. 8, fig. 1, ♂.

One ♂ specimen.

Fam. BEMBICIDÆ.

Genus **BEMBEX**, Fabr.

1. *Bembex fasciata*, Fabr.

*Bembex fasciata*, Fabr. Syst. Piez. p. 224. Dahlb. Hym. Europ. i, p. 184.

*Bembex Spinolæ*, St. Farg. Hym. iii, p. 277.

Six ♀, two ♂ specimens.

2. *Bembex Sayi*, n. sp.

Black; orbits, clypeus, labrum, prothorax, two lines on mesothorax, two large marks on pleura, posterior margins of both scutellums, semicircular line on metathorax, most of legs, and broad bands on abdomen, the second enclosing two black spots, yellow or greenish-yellow; wings hyaline.

*Female*.—Black, minutely punctured, thinly clothed with a fine hoary pubescence, most dense on the occiput, metathorax and base of abdomen; orbits, not reaching the summit before, entire behind, a spot on middle of vertex, a larger one between the insertion of the antennæ, clypeus, labrum, and mandibles except tips, all yellow or greenish-yellow; in one specimen the clypeus has an obscure dusky spot on each anterior corner; antennæ black, the scape yellowish beneath, the flagellum beneath rufo-testaceous. Thorax: most of prothorax, lateral margins of mesothorax, two distant, longitudinal lines before, abbreviated behind, as well as a short transverse line on the posterior margin, a large irregular mark on the pleura anteriorly, another smaller one beneath the posterior wings, posterior margin of scutellum, dilated on each side, narrow, subobsolete posterior margin of postscutellum, an entire semicircular line on metathorax, as well as most of its sides, and two small oblique lines on its posterior face, all yellow or greenish-yellow; in the small specimen these markings are less developed, the two longitudinal lines on mesothorax are abbreviated before as well as behind and the short transverse posterior line is wanting; tegulæ yellow before, blackish behind. Wings hyaline, nervures fuscous. Legs yellow; the coxæ, except a yellow spot on the two anterior pairs beneath, trochanters, the femora behind, except tips, the intermediate pair at base beneath, and

a line on the posterior pair beneath, black; tarsi tinged with ferruginous; tarsal claws blackish; anterior tarsi ciliated with long dull ferruginous setæ. Abdomen faintly iridescent; first segment with a broad greenish-yellow band across the middle, narrowed and interrupted in the middle in the large specimen; second segment with a broad band at base, undulate posteriorly, and enclosing on each side of the disk, a transverse black spot; third segment with a broad band, very deeply and squarely emarginate on each side of the middle anteriorly; fourth and fifth segments each with a narrower biundate band; apical segment entirely black and subrugose; venter entirely black except a greenish-yellow spot on each side of the second, third and sometimes the fourth segments, smaller on the third and fourth segments. The small specimen has the markings of the abdomen more greenish than those of the larger one. Length 7—9 lines; expanse of wings  $10\frac{1}{2}$ — $14\frac{1}{2}$  lines.

Two specimens. Readily distinguished from *B. fasciata* Fabr., by the markings of the thorax, and by the two black spots on the second dorsal segment of the abdomen.

This species is no doubt the one mentioned by Say as a variety of *B. fasciata* Fabr. (Bost. Journ. i, p. 367), from which, however, it is certainly distinct. It occurs also in Illinois.

#### Genus **MONEDULA**, Latr.

##### 1. *Monedula emarginata*, n. sp.

Black; orbits, clypeus, labrum, posterior margin of prothorax, tubercles, two oblique lines on scutellum, and emarginate bands on abdomen, yellowish-white or pale greenish-yellow; most of legs yellow; wings dusky hyaline.

<sup>6</sup> *Female*.—Black, shining; head and thorax more or less clothed with a fine hoary pubescence, tinged with yellowish on the vertex; broad frontal orbits suddenly abbreviated before reaching the summit, more or less broad entire posterior orbits, a small spot just beneath the insertion of the antennæ, clypeus, labrum, mandibles, except tips, and scape of antennæ beneath, yellow or yellowish-white; the mandibles are sometimes piceous, and testaceous in the middle. Thorax: a more or less broad, interrupted line on the posterior margin of the prothorax, sometimes almost confluent, tubercles, tegulæ in front, two oblique lines on scutellum, sometimes large and nearly confluent, and sometimes much reduced and obsolete, yellowish-white or pale greenish-yellow; sometimes, but rarely, there is a line of the same color over the tegulæ and another on the postscutellum; metathorax pubescent, generally immaculate, but in one specimen there is an oblique line on each side above, and a spot on each posterior angle. Wings hyaline slightly tinged with dusky; nervures fuscous. Legs yellow; coxæ, trochanters, the



anterior femora behind and at base beneath, and the two posterior pair except tips beneath, black; tarsi tinged with brownish. Abdomen with the bands and spots either white, yellowish-white or pale greenish-white; basal segment with a broad band, deeply and squarely emarginate on the middle anteriorly, this band is interrupted in the middle by a very narrow line; sometimes the emargination is cut entirely through the band, leaving a large mark on each side of the segment, and two small approximate spots on the middle posteriorly, and in one specimen these two spots are wanting, leaving only the large lateral marks; second, third, fourth and fifth segments with a broad continuous band across the middle, each band with a more or less deep emargination on each side of the middle anteriorly, sometimes the band on the fifth segment is broken into three spots; sixth segment with a subcordate spot at tip; venter with a spot on the sides of the second and three following segments; in more developed specimens these spots are dilated and connected by a narrow line across the apical margin of the segments, and the apical segment has sometimes a spot at tip. Length 7—8½ lines; expanse of wings 11½—13½ lines.

*Male*.—Resembles the female, but smaller, with a band on the sixth segment similar to that on the fifth; in one specimen the markings are much less developed, the prothorax being immaculate, the tubercles black, the first segment of abdomen with only an oblique line on each side, the sixth segment with only a central spot and the apical segment narrowly margined behind with yellowish-white; the anus has three spines, two lateral and one apical, and a stout tooth on the disk of the last ventral segment. Length 6½ lines; expanse of wings 9½ lines.

Ten ♀, two ♂ specimens. Some females are more robust than others, and the abdomen is sometimes broad-ovate, and sometimes oblong. The markings also vary much, being more developed in some specimens than in others.

## 2. *Monedula obliqua*, n. sp.

Black; orbits, clypeus, labrum, mandibles, basal half of antennæ beneath, line on prothorax, tubercles, two spots on scutellum, line on postscutellum, two oblique marks and two small central spots on basal segment of abdomen, and narrow undulate bands on remaining segments, whitish; legs except femora, yellow; wings dusky hyaline.

*Female*.—Deep black, opaque, thinly clothed with whitish pubescence, somewhat yellowish on the vertex; frontal orbits abbreviated above, narrow interrupted or subinterrupted posterior orbits, spot between antennæ, clypeus, labrum, and the mandibles except tips, pale yellowish-white; labrum with a shallow depression on the middle at

base; antennæ black above, the scape beneath as well as the three or four basal joints of the flagellum beneath, yellowish-white, sometimes the apical joints of the latter are obscurely annulated with yellowish. Thorax: a narrow line on the posterior margin of the prothorax, sometimes interrupted, the tubercles, an oblique spot on each side of the scutellum, and a line on postscutellum, yellowish-white, sometimes the tegulæ has a white spot before; metathorax immaculate. Wings hyaline, faintly tinged with fuliginous; nervures fuscous. Legs yellow; coxæ, except a spot on the two anterior pairs beneath, the trochanters. the anterior femora except the anterior edge and a line beneath at base. and the four posterior femora, except the tips in front, black; tips of tarsi dusky. Abdomen shining, elongate, subparallel; basal segment with an elongate, oblique whitish mark on each lateral middle, and two small, approximate, oblique spots of the same color on the posterior middle; the second and three following segments each with a rather narrow, wavy whitish fascia on the apical submargin, that on the second segment produced on each side anteriorly into an obtuse tooth pointing inwardly; apical segment with a subcordate or bilobed spot at tip: beneath, the second and three following segments have a greenish-white spot on each extreme side, largest on the second and third segments. on which they are connected by a very narrow line along the apical margins; apical segment with two spots at tip. Length  $6\frac{1}{2}$ — $7\frac{1}{2}$  lines; expanse of wings 10—12 lines.

Three specimens. Distinguished from the preceding species by the narrower wings, and the narrow, undulate fasciæ of the abdomen.

### 3. *Monedula speciosa*, n. sp.

Yellowish-white: vertex, most of mesothorax, large spot on pleura beneath, and deep emarginations at base of abdominal segment, black; mesothorax with a U-shaped mark on its disk: wings hyaline; legs yellow.

*Female*.—Head yellowish-white, clothed with pale yellowish pubescence, more dense on the vertex; two black cuneiform marks behind the antennæ, divided by a narrow yellowish line which connects with a transverse yellowish spot across the vertex on the posterior middle of which is a large black deeply impressed puncture; rest of vertex and most of the occiput, black; clypeus prominent; scape of antennæ entirely yellow, the flagellum black above, the two basal joints beneath yellow, the rest testaceous, shading into brown at tip. Thorax yellowish-white; tip of prothorax irregularly black; mesothorax black, with the lateral margins and a large U-shaped mark on its disk, yellowish-white; two large, rounded, confluent spots on the pleura beneath, a transverse spot just above the tubercles, basal and apical margins of

scutellum, and a transverse line at base of metathorax, black; the posterior angles of the latter are deeper yellowish, clothed with a fine hoary pubescence and divided from the rest of the metathorax by a narrow black line along the sutures; tubercles with a cuneiform dusky mark anteriorly; tegulae yellowish. Wings hyaline, nervures brownish. Legs yellow; a black spot on each of the four posterior coxæ beneath; tips of the tarsi dusky. Abdomen oblong, subparallel, yellowish-white, slightly tinged with greenish, faintly iridescent; first segment black at base, extending into a deep rounded emargination on the disk posteriorly to about the middle of the segment; basal margins of the second and three following segments narrowly black, extending posteriorly into two more or less deep emarginations, one on each side of the middle, those on the second segment deeper, more approximated and oblique; apical segment with the basal corners and a dot on the basal middle also black; beneath black, the four basal segments each with a wavy pale yellowish fascia, much the broadest on the second segment; fifth segment with a small yellowish spot on each apical corner; apical segment with a large subcordate yellowish spot at tip. Length  $8\frac{1}{2}$  lines; expanse of wings 13 lines.

One specimen. A beautiful species, easily distinguished by the color being mostly yellowish, and by the large U-shaped mark on the mesothorax.

4. *Monedula pulchella*. n. sp.

Black; orbits, angular mark on vertex, clypeus, labrum, mandibles, prothorax, sides and two short lines on mesothorax, most of pleura, scutellums, metathorax in part, legs, and broad emarginate bands on abdomen, yellow; wings hyaline.

*Female*.—Black, slightly pubescent; the orbits, not reaching the summit anteriorly, an angular line in front of ocelli, a spot between the antennæ, clypeus, labrum, and mandibles except tips, yellowish; the face and clypeus have a silvery reflection in certain lights; antennæ brown above, scape yellow beneath, the flagellum fulvous beneath. Thorax black; most of prothorax, lateral margins and two elongate acute spots on the anterior middle of mesothorax, tubercles, pleura except an oblong, oblique, black spot beneath, the scutellum and post-scutellum except basal margins, yellow; metathorax yellow with a broad transverse mark at base, and an oblique line on each side dividing the posterior angles from the dorsal portion, black; tegulae yellowish. Wings hyaline, nervures brown. Legs yellow; the trochanters above and a line on the femora above at base, black; tarsi tinged with fulvous at tips. Abdomen black, shining; each segment with a broad,

apical, yellow band, that on the first segment deeply, broadly and obtusely emarginated on the middle anteriorly, those on the remaining segments with a very broad, square, emargination anteriorly, sometimes broken into two emarginations, one on each side of the middle; apical segment mostly yellow; venter yellow, with the basal margins black. Length  $6\frac{1}{2}$  lines; expanse of wings 10 lines.

*Male*.—Resembles the female, but the markings are less developed; the orbits are not so broad; the prothorax is black, except its lateral and posterior margins; the mesothorax is entirely black, except a short line over the tegulae; most of the pleura and metathorax is also black, and the yellow bands on the abdomen are narrower and less developed; the black basal margins of the ventral segments are broader.

Two ♀, one ♂, specimens. Closely allied to *M. pictifrons* Smith, but is smaller, the wings much larger and the markings of the head and abdomen are different.

5. *Monedula ventralis*, Say.

*Monedula ventralis*, Say, Long's Second Expedition, ii, p. 337.

One ♂ specimen.

Fam. NYSSONIDÆ.

Genus **LARRA**, Fabr.

*Larra uncineta*, Say.

*Stizus uncinetus*, Say, West. Quar. Rep. ii, p. 77; American Entomology, pl. 2.

Five specimens.

Genus **GORYTES**, Latr.

1. *Gorytes venustus*. n. sp.

Black, sericeous; clypeus, line on collar, tubercles, scutellum, two large spots on metathorax and broad bands on abdomen, yellow; antennæ except tip, most of legs, and part of first and second segments of abdomen, fulvous; wings yellowish-fuscous, a dark fuscous cloud about the marginal cell; stigma yellow.

*Female*.—Black, shining, covered with a very fine, dense golden-sericeous pile, more obvious in certain lights; clypeus, labrum, a dot between the antennæ, and frontal orbits abbreviated above and dilated beneath, yellow; mandibles black, piceous at tips; palpi yellowish; antennæ fulvous, the four or five apical joints black, the scape yellowish beneath. Thorax: a line on the collar, tubercles, a spot beneath the anterior wing, the scutellum, except the basal margin, and two longitudinal ovate spots on the metathorax, yellow; the tegulae and a line over them, fulvous; enclosed space of metathorax with a central well-impressed longitudinal line. Wings yellowish-fuscous, with a golden or slight purplish gloss; a dark fuscous cloud covering the marginal and part of the second and third submarginal cells; stigma pale yellow;



nervures honey-yellow. Legs fulvous, most of the tibiæ and tarsi yellow; a black line on the femora above; tips of tarsi fulvous. Abdomen subpetiolated, beautifully sericeous, shining; the two basal segments except the black basal margin, rufo-fulvous, with a broad apical yellow fascia, that on the first segment deeply notched in the middle anteriorly, while that on the second is narrowed in the middle anteriorly; in one specimen nearly the basal half of the second segment is black, leaving a narrow fulvous band on the middle; third segment yellow with a more or less broad brown band at base; remaining segments yellow, the fourth segment sometimes with the basal margin more or less brownish; sometimes the apical segment is also more or less brownish; beneath black or brown, with a broad band on the second and following segments. Length 6 lines; expanse of wings 11 lines.

*Male*.—Closely resembles the female, but is smaller; the black band on the base of the second abdominal segment is often very broad, covering almost the half of the segment, leaving only a narrow line of fulvous on the middle; the two apical segments are entirely black and strongly sericeous, and in one specimen the sides of the fifth segment are brownish; beneath there is a broad yellow fascia on the second segment and a small yellow spot on each apical corner of the third segment, and in one specimen this segment has a broad band similar to that on the second. Length 5—5½ lines; expanse of wings 9—10½ lines.

Three ♀, four ♂ specimens.

2. *Gorytes modestus*, n. sp.

Black, polished; clypeus, collar, tubercles, line on scutellum, two large elongate spots on metathorax, tarsi, and posterior margins of abdominal segments, yellow; rest of legs and two basal segments of abdomen brownish; wings yellowish-fuscous.

*Male*.—Black, polished, slightly sericeous; frontal orbits abbreviated above, a spot beneath antennæ, clypeus, labrum, and mandibles except tips, yellow; antennæ fulvous, brownish above, the scape yellowish beneath. Thorax: a line over the collar, tubercles, a spot beneath the anterior wings, posterior margin of scutellum, and two large elongate spots on metathorax, yellow; tegulæ and a line over them, fulvous; enclosed space of metathorax with a central longitudinal impressed line at tip. Wings yellowish-fuscous, with a golden and violaceous reflection; marginal cell darker fuscous; nervures honey-yellow, stigma yellow. Legs: femora brown-ferruginous; tibiæ fulvous, paler beneath; tarsi yellow, dusky at tips. Abdomen subpetiolated, highly polished; first segment yellow at base and apex, ferruginous on the middle;



second segment dark chestnut-brown, with a rather broad band at tip, slightly narrowed in the middle anteriorly; remaining segments black, sericeous, with their apical margins yellow; beneath, the first almost entirely, and the narrow apical margins of the remaining segments, yellow. Length 4 lines; expanse of wings  $9\frac{1}{2}$  lines.

One specimen. Very distinct from the preceding by the yellow mandibles, and the narrow fasciæ of the abdomen.

8. *Gorytes abdominalis*, n. sp.

Black; legs ferruginous; wings dark fuliginous, violaceous, stigma fulvous; abdomen yellow, with the basal margins of the third, fourth and fifth segments, and the apical segments, black.

*Female*.—Black, polished, slightly sericeous; most of the clypeus and mandibles piceous; frontal orbits obscurely testaceous; antennæ fulvo-ferruginous, black at tips. Thorax: posterior margin of the prothorax, tubercles, tegulæ, a line over the tegulæ, scutellum, and metathorax, except the enclosed basal space, reddish-brown; the latter with a central well impressed longitudinal line. Wings ample, dark fuliginous, paler at tip, with a deep violaceous reflection, the marginal cell darker; stigma and costa fulvous. Legs entirely rufo-fulvous. Abdomen subpetiolated, curved downwards at tip, bright yellow; base of the first and the anterior margin of the second, fulvous; base of the third and fourth segments broadly black, slightly dilated on the middle posteriorly; fifth and sixth segments black, sericeous, the former with a central, quadrate, yellow spot; venter black, the two basal segments yellow. Length  $4\frac{1}{2}$  lines; expanse of wings 10 lines.

*Male*.—Resembles the female, but the clypeus, lower frontal orbits, spot on base of mandibles, scape of antennæ beneath, and a narrow line over the collar, are yellow; rest of the antennæ is black; the legs are honey-yellow, with their coxæ black; the wings have a brilliant golden-violaceous reflection; the fifth segment of the abdomen has an apical yellow band, indented on each side of the middle anteriorly; the black basal bands of the third and fourth segments are narrower than in the female; one specimen has the dorsal surface of the abdomen almost entirely yellow, only the basal incisure of the third and fifth, and the two apical segments entirely, being black; the venter has the first, second, and the apical margin of the third segments, yellow. Length 4 lines; expanse of wings  $9\frac{1}{2}$  lines.

One ♀, three ♂ specimens. A beautiful species, easily recognized by the large blackish wings and the yellow abdomen.

Genus **MELLINUS**, Fabr.**Mellinus rufinodus**, n. sp.

Black; a line on collar, transverse line on scutellum and postscutellum, broad band on second and fourth segments of abdomen and a spot on each side of the third, yellow; legs, except base, and node of abdomen, rufous; wings hyaline.

*Female*.—Black, shining; head, pleura and metathorax slightly covered with a fine glittering cinereous pile; head subopaque, faintly golden on the vertex; occasionally there is a faint yellow line on the frontal orbits; cheeks and occiput shining; antennæ black above, rufo-testaceous beneath. Thorax: a line over the collar, posterior margin of the tubercles, and a short transverse line on scutellum and postscutellum, pale yellowish; tegulæ yellowish in front, ferruginous behind. Wings hyaline, glossy; nervures blackish. Legs rufo-ferruginous, sericeous; coxæ, trochanters and base of femora, more or less, black. Abdomen shining black; the node or basal segment entirely rufo-ferruginous; a broad band, sometimes slightly interrupted on the posterior third of the second segment, a transverse, subquadrate spot on each side of the third segment, and the fourth segment entirely or nearly so, pale yellow or whitish; the two apical segments black; venter black. Length 5—6 lines; expanse of wings  $8\frac{1}{2}$ — $10\frac{1}{2}$  lines.

*Male*.—Very similar to the female, but smaller and more slender; the basal joint of the antennæ beneath is yellowish-white; the legs are much darker, the femora being almost entirely black; the abdomen is beautifully sericeous, while the fifth segment has a transverse yellowish-white fascia as on the fourth segment, both being sometimes abbreviated on each side; the apical segment is occasionally tinged with obscure ferruginous. Length 5 lines; expanse of wings  $8\frac{1}{2}$  lines.

Twelve ♀, fourteen ♂ specimens. Mr. Ridings observed numerous specimens of this species on horse excrement, preying, no doubt, on dipterous larvæ.

## Fam. CRABRONIDÆ.

Genus **OXYBELUS**, Latr.1. **Oxybelus interruptus**, n. sp.

Black; tubercles and a more or less interrupted band on each abdominal segment, white; anterior tibiæ within and their tarsi, honey-yellow; wings dusky.

*Female*.—Black, closely and finely punctured, with a thin glittering pile, more obvious on the face; antennæ piceous, dull honey-yellow at tips beneath. Thorax: mesothorax with a well-impressed central longitudinal line; tubercles white; pleura subrugose; metathorax rather coarsely reticulated, the squama whitish, the mucro stout, sublinear, grooved above, and subtruncate or very slightly emarginate at tip;

tegulae brownish, with a white spot in front. Wings tinged with fuliginous. Legs black; anterior tibiae within and their tarsi, honey-yellow, as well as the calcaria and tips of the other tarsi; the four posterior tibiae with a white spot at base. Abdomen shining, each segment with a narrow, white, subapical fascia, widely interrupted in the middle of the first and second segments, and slightly so on the remaining segments; venter black. Length  $3\frac{1}{2}$  lines; expanse of wings  $6\frac{1}{4}$  lines.

One specimen.

2. *Oxybelus similis*, n. sp.

Black, sericeous; abdominal segments with subinterrupted white fasciae; anterior tibiae and tarsi and the tegulae, honey-yellow; wings hyaline.

*Female*.—Closely resembles *O. interruptus*, but the body is more densely and strongly punctured and the pubescence is stronger and more obvious; the flagellum is testaceous beneath; the tubercles are not white; the squama are smaller, while the mucro is the same as in *interruptus*; the metathorax is finely sculptured and not reticulated, and the enclosed space, from which the mucro proceeds, is obliquely striated on the sides; the tegulae are entirely honey-yellow; wings hyaline and faintly iridescent; the legs are entirely black, except the anterior tibiae and tarsi, and tips of the other tarsi, which are dull honey-yellow; the abdomen is sericeous and not so shining; the fasciae on the four basal segments are only slightly interrupted in the middle, and that on the first is dilated towards the middle; the fifth segment has two approximate white dots on the middle, and the apical segment is black, immaculate; venter immaculate. Length  $3\frac{1}{4}$  lines; expanse of wings 6 lines.

One specimen.

3. *Oxybelus parvus*, n. sp.

Small, black, sericeous; mandibles, flagellum beneath, tegulae, anterior tibiae and tarsi, and spot on each side of first abdominal segment, testaceous; wings hyaline; mucro large and strongly furcate at tip.

*Female*.—Black, very densely, uniformly and strongly punctured, with a distinct, silvery pubescence, very brilliant on the face; the mandibles, the flagellum beneath, and the tegulae, honey-yellow; metathorax rugose, the squama large, whitish and claw-shaped, the mucro also large, broad, grooved above, dilated towards the tip, which is whitish and deeply emarginated, giving the process a strongly furcate appearance. Wings hyaline, beautifully iridescent. Legs black or piceous; the anterior tibiae and tarsi entirely, the middle tibiae in front, the posterior pair at base, as well as the base of the four posterior tarsi, testaceous. Abdomen very closely, uniformly and distinctly punctured,

strongly sericeous; the segments much contracted at base, the first deeply impressed on the basal middle, with a transverse whitish spot on each side at tip, and a very indistinct whitish line on each side of the second segment; beneath piceous, the apical margins of the segments paler. Length 2 lines; expanse of wings  $3\frac{1}{2}$  lines.

One specimen.

Genus **CRABRO**, Fabr.

1. **Crabro ater**, n. sp.

Entirely deep black, shining; clypeus silvery; wings smoky; abdomen clavate.

*Female*.—Deep black, shining, with a slight cinereous pile; ocelli in an equilateral triangle, the anterior ocellus in a large, deep depression; clypeus silvery; enclosed space of metathorax smooth and shining, with a well defined carina down the middle; tegulæ piceous. Wings pale fuliginous, subviolaceous, subhyaline at base; nervures blackish. Legs black; tarsi simple, piceous. Abdomen polished, immaculate, subpetiolate, clavate. Length  $3\frac{1}{2}$  lines; expanse of wings  $7\frac{1}{4}$  lines.

Two specimens.

2. **Crabro latipes**, Smith.

*Crabro latipes*, Smith, Brit. Mus. Cat. Hym. iv, p. 396, ♂.

Nine ♂ specimens.

3. **Crabro Packardii**, n. sp.

Black; mandibles, scape of antennæ, line on prothorax, two spots beneath the wings, postscutellum, most of legs, transverse spot on each side of two basal segments of abdomen, and entire bands on the remainder, yellow; wings smoky.

*Female*.—Black, slightly pubescent, and indistinctly punctured, opaque; face with golden, clypeus with silvery pubescence; mandibles, except tips, and scape of antennæ, yellow. Thorax: posterior margin of the prothorax transversely grooved and with a transverse yellowish-white line, slightly interrupted in the middle; mesothorax immaculate; tubercles and a spot just behind, beneath the anterior wing, yellow; scutellum with a yellowish dot on each basal corner, and the postscutellum with a yellow transverse line; metathorax immaculate, the base above obliquely and rather indistinctly striated and with a central, longitudinal, well-impressed line; tegulæ testaceous, with a yellow spot in front. Wings uniformly tinged with pale fuliginous, somewhat tinged with yellowish, especially so at base; nervures fuscous. Legs yellow, simple; coxæ, trochanters, and base of femora more or less, black; tips of tarsi dusky. Abdomen subsessile, ovate; first and second segments with an irregular, transverse yellow spot on each lateral middle, the inner edges more or less emarginated; the third, fourth and fifth

segments each with a rather broad, central, continuous, yellow band slightly narrowed on the anterior middle and somewhat emarginate on each extreme side anteriorly; apical segment pinched at the sides which have a triangular yellow spot at base, above the margins are carinate. the surface being rugulose and pubescent, and forming an elongate channel, obtuse at tip; beneath shining black, with irregular yellow markings at the apex of the second, third and fourth segments. Length  $6\frac{1}{2}$  lines; expanse of wings  $9\frac{1}{2}$  lines.

*Male*.—Resembles the ♀, but more slender; the sixth joint of the antennæ is somewhat produced beneath; the spot behind the tubercles is wanting, the line on postscutellum is interrupted in the middle; the spots on the basal segment of abdomen are smaller and less irregular, the sixth segment has a continuous band like that on the fifth, and the apical segment is either entirely black or with two yellowish spots; beneath, the segments have merely a lateral yellow dot. Length  $4\frac{1}{2}$ —5½ lines; expanse of wings  $7\frac{1}{2}$ —8 lines.

One ♀, two ♂ specimens. This handsome species is respectfully dedicated to my friend and co-laborer, Dr. A. S. Packard, Jr., of Brunswick, Maine.

#### 4. *Crabro dilectus*, n. sp.

Black; mandibles, scape of antennæ; interrupted line on prothorax, two spots beneath the wings, postscutellum, legs except base, and bands on abdomen, white or yellowish-white; wings fulvo-hyaline.

*Female*.—Black, opaque, very closely and minutely punctured, slightly pubescent; face, cheeks, and clypeus silvery, more obvious on the latter; mandibles with an exterior broad whitish stripe; scape of antennæ yellow. Thorax: an interrupted line on prothorax, tubercles and a spot immediately behind, a dot on each basal corner of the scutellum, and a line on the postscutellum, white or pale yellow; metathorax immaculate, the base obliquely and rather indistinctly striated; tegulæ testaceous, with a yellowish spot in front. Wings fulvo-hyaline, darker at tips; nervures honey-yellow. Legs simple, pale yellow; the coxæ, trochanters, and femora except tips, black; tips of tarsi dusky. Abdomen subsessile, elongate, convex, shining; basal segment with an irregular, whitish spot on each lateral middle; the remaining segments each with a central whitish fascia, slightly interrupted in the middle on the second segment and sometimes on the third, while those on the third and fourth have a slight notch on the extreme sides anteriorly and a shallow emargination on each side posteriorly; all the bands are more or less narrowed in the middle; apical segment black, immaculate, subconical, flattened above, rather strongly punctured, with the



lateral margins carinate, the apex obtuse, and the sides scarcely pinched in; venter black, immaculate. Length  $5\frac{1}{2}$  lines; expanse of wings 9 lines.

*Male*.—Very similar to the female; the fourth, fifth and sixth joints of the antennæ beneath are uneven; the femora have much more yellow at tips, and all the bands of the abdomen are continuous, except that on the first segment, which is more or less interrupted. Length 5 lines; expanse of wings 6 lines.

Two ♀, three ♂ specimens. This pretty species is closely allied to the preceding, the ♂ of which has much similarity in its shape and markings with the ♀ of the present species, so much so that I hesitated long in separating them.

5. *Crabro vicinus*, n. sp.

Black; clypeus, spot on mandibles, scape of antennæ, collar, tubercles, scutellum, tibiæ and tarsi, and bands on abdomen, yellow; wings yellowish-fuscous.

*Female*.—Black, slightly shining, sparsely pubescent; head minutely punctured; the clypeus, a stripe on the mandibles, and scape of antennæ yellow, the former silvery. Thorax closely and strongly punctured, especially above; a transverse line on the collar, very slightly interrupted in the middle, tubercles, and a broad transverse spot on the scutellum, yellow; metathorax immaculate, rugulose, longitudinally striated at base, with a deep central channel; tegulæ with a white spot before. Wings strongly tinged with fulvo-fuscous, paler at base and darker at tips; nervures fulvo-fuscous. Legs simple, black; tips of the four anterior femora, and all the tibiæ and tarsi, except a spot on the tibiæ beneath, yellow; tips of tarsi dusky. Abdomen subessile, elongate-ovate, convex, shining; each segment with a rather broad, central yellow fascia, those on the first three segments slightly interrupted in the middle, except in one specimen where they are entire, with the anterior and posterior margins crenulated; apical segment conical, entirely black, with elongate punctures and raised sides, the apex obtuse; beneath, the second segment has a more or less large, lateral, irregular yellowish mark, and the following segment a lateral dot. Length  $4\frac{1}{2}$ —5 lines; expanse of wings 7— $7\frac{1}{2}$  lines.

Three specimens. Seems to be closely allied to *C. advena* Smith, from Nova Scotia, but the metathorax is not "very coarsely rugose."

6. *Crabro succinctus*, n. sp.

Black; clypeus, spot on mandibles, scape of antennæ, tibiæ and tarsi, and interrupted fasciæ on abdomen, yellow; wings subhyaline.

*Female*.—Black, opaque, minutely punctured, slightly pubescent; clypeus, a line at base of mandibles, scape of antennæ, except a spot

behind at base, pale yellow; clypeus silvery. Thorax minutely punctured, more distinct and sparse on the scutellum; immaculate, except occasionally a whitish spot on the tubercles and an obscure interrupted whitish line on the collar; metathorax deeply and irregularly striated at base above; tegulæ black. Wings dusky-hyaline, fuliginous at tips; nervures fuscous. Legs simple, black; tibiæ and base of tarsi yellow, the former more or less black within, and the posterior pair with an exterior black spot at tip. Abdomen subsessile or slightly subpetiolate, shining; first segment with a central, transverse, sublunate, yellow spot on each side, nearly confluent on the disk; on each side of the second segment a transverse ovate yellow spot, pointed within and sometimes nearly confluent in the middle; remaining segments each with a narrow transverse yellow fascia, often interrupted on the third and fourth segments; apical segment conical, entirely black, subrugose with the sides raised; venter black, smooth, shining and immaculate. Length  $3\frac{1}{2}$ —5 lines; expanse of wings 6—8 lines.

Three specimens.

7. *Crabro conspicuus*, n. sp.

Black; clypeus, spot on mandibles; scape of antennæ, interrupted line on collar, tubercles, scutellum, tibiæ and tarsi, broad band on first segment of abdomen, two large spots on second, and narrow subinterrupted bands on remaining segments, yellow; wings smoky.

*Female*.—Black, minutely punctured, slightly pubescent; clypeus, a line on mandibles and scape of antennæ, yellow; clypeus silvery, sometimes with a central black line. Thorax: a line on the collar, slightly interrupted in the middle, tubercles, and scutellum, yellowish, sometimes whitish; metathorax with strongly developed longitudinal elevated lines; pleura shining; tegulæ black. Wings smoky-hyaline, darker at tips; nervures black. Legs simple, black; extreme tips of the femora, the tibiæ, except a spot or line within, and the tarsi except tips, yellow. Abdomen subsessile, narrow, elongate, convex, shining; first segment with a broad, continuous, subapical yellow band; second segment with a large transversely subquadrate yellow spot on each side a little behind the middle; the third and fourth segments each with a narrow, yellow, apical fascia interrupted in the middle and emarginate on each side anteriorly; the fifth segment with a continuous yellow fascia on the apical margin; apical segment conical, entirely black, rugulose, with the sides raised; beneath black, smooth and shining, immaculate. Length  $5$ — $5\frac{1}{4}$  lines; expanse of wings  $7\frac{1}{2}$ —8 lines.

Three specimens. Easily recognized by the broad band and spots on the two basal segments of the abdomen.

8. *Crabro odyneroides*, n. sp.

Black: stripe on mandibles, scape of antennæ, interrupted line on collar, tubercles, line on postscutellum, tibiæ and base of tarsi, and fasciæ on second and four following segments of abdomen, yellow; wings fuliginous.

*Male*.—Deep black, opaque, very densely punctured, thinly clothed with a pale fuscous pubescence; a stripe on base of mandibles, and the scape of the antennæ, yellow, the sixth joint of the latter strongly produced beneath. Thorax: an interrupted line on the collar, tubercles, and a line on the postscutellum, yellow; metathorax rugulose, not striated at base; tegulæ testaceous. Wings uniformly stained with pale fuliginous; nervures fuscous. Legs black; tips of the four anterior femora, a line on the two anterior pair beneath, all the tibiæ except a line on the two anterior pairs beneath, and a spot on the posterior pair at tip beneath, yellow; tarsi fuscous, the two basal joints yellow. Abdomen subsessile, convex, minutely punctured and shining; the second and four following segments each with a median, yellow fasciæ, the two first attenuated in the middle, the second slightly interrupted in the middle in one specimen, and very widely interrupted in the other, leaving only a transverse spot on each extreme side; in the former specimen the basal segment has a yellow dot on each side; the other fasciæ are continuous and of equal width; apical segment black, immaculate, punctured, with a slight central, longitudinal impression; venter black, immaculate. Length 4 lines; expanse of wings  $6\frac{1}{2}$  lines.

Two specimens. This species has somewhat the shape and markings of certain species of *Odynerus*.

9. *Crabro bellus*, n. sp.

Black; scape of antennæ, two lines on collar, tubercles, tibiæ and tarsi, and interrupted fasciæ on abdomen, yellow; wings subhyaline; thorax with longitudinal punctures.

*Female*.—Black, opaque; head large, quadrate; clypeus clothed with pale pubescence; vertex with strong, sparse punctures, the occiput and cheeks with very dense fine punctures; antennæ black, the scape yellow, the small second joint dull honey-yellow. Thorax: mesothorax and scutellum with rather dense, longitudinal punctures, running into striæ on the scutellum and posterior part of mesothorax; pleura with fine longitudinal striæ; metathorax rugose or somewhat reticulated; a transverse spot on each side of the prothorax above, and the tubercles, yellow; tegulæ dull testaceous. Wings pale fulvo-fuscous, a little darker at tips; nervures dull honey-yellow. Legs black; tips of the four anterior femora, all the tibiæ and base of tarsi, yellow; rest of tarsi dusky. Abdomen subsessile, ovate, shining, minutely punctured; the first five segments each with a median, yellow fasciæ, slightly interrupted in the

middle, especially on the first three segments; the fascia on the first segment is somewhat wavy; apical segment black, immaculate, pubescent, pinched in at the sides, and subacute at tip; venter black, shining and immaculate. Length 4 lines; expanse of wings  $6\frac{3}{4}$  lines.

One specimen.

10. *Crabro nigrifrons*, n. sp.

Black; clypeus silvery; scape of antennæ, interrupted line on collar, tubercles, legs in part, two spots on first abdominal segment, and interrupted fasciæ on the following segments, yellowish-white; wings subhyaline; abdomen subpetiolate.

*Male*.—Black, opaque, very densely and very minutely punctured, thinly clothed with an erect cinereous pubescence; head quadrate; the front depressed; sides of the face and the clypeus bright silvery; mandible entirely black; antennæ black, the scape yellow, with black line at base within; flagellum brownish beneath, with the third to sixth joints produced into a tooth at the apex. Thorax: an interrupted line on the collar, and a spot on the tubercles, pale yellowish; under a very strong lens the punctures on the scutellum run into longitudinal striæ; in one specimen the postscutellum has a narrow, abbreviated yellowish line; metathorax very densely punctured, transversely and rather indistinctly striated on the sides, and sometimes with a few longitudinal or slightly oblique elevated lines at the base above; tegulæ brownish. Wings uniformly stained with pale fuscous or fuliginous, with a faint coppery or violaceous reflection. Legs simple; the coxæ and trochanters black; anterior femora honey-yellow within and above, black exteriorly with a yellow line beneath; middle femora yellow within, shading into blackish at base, and a large black mark behind at base; posterior femora sometimes entirely black, but often tinged with honey-yellow at tips, and with a narrow yellow line above; tibiæ yellow, with a black line beneath and more or less stained with honey-yellow towards the tips; the four anterior tarsi yellow exteriorly, dusky honey-yellow at tips and beneath; posterior pair dusky honey-yellow, with a blackish line exteriorly. Abdomen subpetiolated, convex, shining, very densely and minutely punctured; basal segment subconical, with a pale, small, yellowish-white, transverse spot on each side about the middle; the five following segments each with pale yellowish or yellowish-white fascia at base, interrupted in the middle on the first three segments, and entire on the rest; apical margin of the apical segment is sometimes obscure testaceous; beneath black, smooth and polished, obscurely testaceous at tip. Length 5 lines; expanse of wings  $7\frac{1}{2}$  lines.

Three specimens.

11. *Crabro atrifrons*, n. sp.

Black, deeply punctured; scape of antennæ, tubercles, tibiæ, and bands on abdomen, the first three interrupted, yellow; wings dusky.

*Male*.—Black, opaque, with crowded, deep punctures, slightly pubescent; head quadrate, scarcely wider than the thorax; clypeus fringed with a pale pubescence; antennæ simple, scape yellow with a black line behind, the flagellum fulvous beneath. Thorax immaculate, except a yellow spot on tubercles and two obscure brownish spots on the collar; metathorax coarsely reticulated, the sides longitudinally striated; tegulæ brownish. Wings dusky hyaline; nervures fuscous. Legs black, shining; tips of the four anterior femora, especially of the anterior pair, all the tibiæ, except beneath, and base of tarsi, yellow; posterior tibiæ with a black line on the outside; rest of tarsi dusky-testaceous, blackish at tips; anterior tarsi with the basal joints slightly testaceous. Abdomen subsessile, elongate-ovate, convex, closely and finely punctured; each segment, except the last, with a median yellow fascia, interrupted in the middle on the three basal segments, entire on the rest; apical segment obtusely rounded, with a yellow dot on each side; venter immaculate. Length 4 lines; expanse of wings  $6\frac{1}{2}$  lines.

One specimen.

12. *Crabro atriceps*, n. sp.

Black; clypeus silvery; two spots on collar, tubercles, interrupted line on postsentellum, line on tibiæ, and an interrupted fascia on the second and three following segments of abdomen. yellowish: wings hyaline.

*Female*.—Deep black, opaque, densely and very minutely punctured, slightly pubescent; head quadrate, wider than the thorax; sides of the face and the clypeus silvery; mandibles and antennæ entirely black. Thorax: mesothorax with two slightly elevated longitudinal lines on the middle, having a channel between them; two short transverse lines on the collar, tubercles, and a slightly interrupted line on the prothorax, sometimes wanting, yellow; pleura and sides of metathorax with fine dense longitudinal striæ; metathorax with a deep longitudinal channel and a few oblique elevated lines at base above, the channel itself is transversely striated; tegulæ piceous. Wings hyaline, faintly tinged with dusky; nervures fuscous. Legs black; tibiæ with an exterior yellow line. Abdomen subsessile, ovate, convex, shining, very minutely punctured; second and three following segments each with a sub-basal yellow fascia, more or less interrupted on the second, third and fourth segments, and confluent on the fifth segment; in one specimen the fasciæ, except on the fifth segment, are very widely interrupted; basal and apical segments and the venter immaculate; the apical segment produced into an elongate obtuse spine, which has a



sharp raised margin, and is covered with large punctures. Length 4 lines; expanse of wings 6 lines.

Three specimens.

13. *Crabro contiguus*, n. sp.

Black; face and clypeus golden; scape of antennæ, two short lines on collar, tubercles, tibiæ and tarsi, and fasciæ on the second and three following segments of abdomen, entire on the fifth segment, and interrupted on the next, pale yellowish; wings subhyaline.

*Female*.—Black, opaque, densely and very minutely punctured, thinly clothed with an erect, pale pubescence; head large, quadrate; sides of the face and the clypeus golden; stripe on the mandibles and the scape of the antennæ yellow; cheeks a little silvery. Thorax: mesothorax with two slightly elevated longitudinal lines on the middle, with a shallow channel between them; two narrow transverse lines on the prothorax, and the tubercles, pale yellow; under a strong lens the posterior part of the mesothorax and the scutellum are covered with very fine longitudinal striæ; base of metathorax with oblique elevated lines and a deep central channel; sides of the pleura finely and longitudinally striated; tegulæ dull testaceous. Wings dusky hyaline, a little iridescent; nervures fuscous. Legs black; tips of the four anterior femora, all the tibiæ, and the tarsi, except tips which are dusky, yellow. Abdomen subsessile, ovate, convex, smooth and shining; the second and three following segments each with a basal, pale yellowish fascia, interrupted in the middle, sometimes broadly, on the second, third and fourth segments, entire on the fifth; apical segment immaculate, shaped as in the preceding species, and clothed with long golden-yellow pubescence; venter immaculate, smooth and shining. Length  $4\frac{1}{2}$ —6 lines; expanse of wings  $7\frac{1}{2}$ —9 lines.

Three specimens. This species seems very closely allied to *Crabro obscurus*, Smith, but the postscutellum in the present species is immaculate, and the mesothorax is not "longitudinally roughened."

14. *Crabro montanus*, n. sp.

Black; clypeus silvery; stripe on mandibles, scape, two spots on collar, and spots on each side of abdominal segments, whitish; wings pale fuliginous.

*Female*.—Black, opaque, closely and very minutely punctured, slightly pubescent; head quadrate; face and clypeus silvery; mandibles with a yellowish-white stripe; scape of the antennæ yellowish-white, black behind at base; the cheeks slightly silvery. Thorax more distinctly punctured than the head; the mesothorax channelled down the middle, with the sides raised; scutellum shining and sparsely punctured; two transverse lines on the collar, tubercles, and sometimes

a dot on each side of postscutellum. whitish; pleura covered with fine longitudinal striæ; metathorax with a deep central channel, and coarse longitudinal or slightly oblique striæ at base; tegulæ piceous or piceous-black. Wings uniformly tinged with pale fuliginous, more or less iridescent or subviolaceous; nervures black. Legs black; the four anterior tibiæ with a yellow exterior line, and the posterior pair with a broad yellow annulus near the base; tarsi brown. Abdomen subsessile, ovate, subconvex, smooth and shining; first segment with a whitish dot on each side about the middle, sometimes wanting; the second and three following segments each with a transverse, subovate, slightly oblique, whitish spot on each side near the base, those on the second segment longest, those on the fifth segment more approximated; apical segment pubescent, pinched in at the sides, and subacute at tip; venter immaculate, smooth and shining. Length 4—5 lines; expanse of wings 6—7½ lines.

Four specimens.

15. *Crabro 6-maculatus*. Say.

*Crabro 6-maculatus*, Say. Long's Second Expedition, ii, p. 341.

Ten ♀ specimens. The third segment of the abdomen has sometimes a whitish transverse line on each side, and the spots on fifth segment are often confluent and form a regular band. The lines on the postscutellum are sometimes wanting, while the scutellum is always immaculate in the specimens from Colorado Territory; the markings are all whitish, sometimes only slightly tinged with yellowish; all the femora are black, and not tipped with yellow, and the scape of the antennæ is black at base within. None of the specimens before me are over 5½ lines in length, and may possibly belong to a distinct species.

16. *Crabro honestus*, n. sp.

Black; line on mandibles, scape, tubercles, legs in part, spot on each side of second abdominal segment, and fasciæ on the four following segments, interrupted on the third, bright yellow; wings subhyaline.

*Female*.—Deep black, subopaque, densely and very finely punctured, slightly pubescent; sides of the face, clypeus and cheeks, silvery; stripe on the mandibles, and the scape of the antennæ, except a line at base within, yellow; the joints of the flagellum beneath are uneven and the sixth joint is toothed. Thorax: prothorax with a deep transverse groove on each side above, and sometimes two obsolete pale spots; tubercles yellow; pleura and sides of metathorax longitudinally and finely striated; base of metathorax obliquely, and the posterior face transversely striated, the latter with a deep central excavation; postscutellum sometimes with an obsolete pale spot on each side; tegulæ testaceous.

Wings dusky hyaline; nervures fuscous. Legs black; tips of the femora, especially of the anterior pair, and the tibiæ, except a spot on the posterior pair at tip beneath, yellow; tarsi more or less dusky, blackish at tips. Abdomen subsessile, elongate-ovate, convex, shining; first segment sometimes with a yellow dot on each side; second segment with an oblique, subovate yellow spot on each side; third segment with a transverse, slightly undulate, median, bright yellow fascia, interrupted in the middle; the three following segments each with a submedian, continuous, bright yellow fascia; apical segment immaculate, rounded at tip; beneath shining black, immaculate. Length 5 lines; expanse of wings 8 lines.

Two specimens.

Genus **PEMPHREDON**, Latr.

1. **Pemphredon Morio**, n. sp.

Black, immaculate; apical half of wings fuscous, violaceous; abdomen ovate, polished, petiole rugose, one-half the length of the abdomen.

*Female*.—Deep black, immaculate; head large, quadrate, subopaque, closely and confluent punctured on the front, and running into longitudinal striæ, while on the occiput and cheeks the punctures are more sparse; the face and cheeks have a thin whitish pubescence; mandibles deeply grooved towards the tip which is obtusely bidentate; antennæ slender, black, tinged with piceous towards the tips beneath. Thorax opaque, very densely and finely sculptured, and under a very strong lens the rugosity on the mesothorax runs into minute, indistinct, transverse striæ; the dorsal line of the mesothorax is faintly impressed, with a deeper longitudinal line on each side between it and the tegulæ; scutellum with elongate punctures; metathorax rugulose, rather coarser on the basal middle, which is flattened, with the posterior margin rounded and subcarinate; the posterior face clothed with a thin whitish pubescence; tegulæ piceous-black. Wings long and ample, hyaline, with the apical half fusco-hyaline, rather strongly tinged with violaceous; nervures and stigma blackish. Legs entirely black, subsericeous. Abdomen broadly ovate, smooth and highly polished; petiole one-half the length of the rest of the abdomen, flattened, rugulose and slightly pubescent. Length  $5\frac{1}{4}$  lines; expanse of wings  $8\frac{3}{4}$  lines.

One specimen. This may be identical with *P. concolor* Say, but it does not agree satisfactorily with the description of that species. This is larger, the wings differently colored, and the petiole is half the length of the remainder of the abdomen.

2. *Pemphredon mandibularis*, n. sp.

Black; mandibles, scape of antennæ beneath, tubercles, line on anterior tibiæ and spot or annulus at base of four posterior tibiæ, whitish; wings hyaline, dusky at tips; abdomen elongate, polished, petiole short.

*Female*.—Deep black; head and thorax subopaque; head subquadrate, without distinct punctures; face and clypeus slightly silvery; mandibles large, white, black at extreme tips which are broad and very slightly emarginated; scape of antennæ beneath also white. Thorax without distinct punctures; mesothorax with four longitudinal impressed lines in front, becoming obsolete before reaching the posterior margin, the two central lines very close together, leaving merely a narrow ridge between them; scutellum flattened, quadrate, shining; metathorax subquadrate, opaque, abrupt on the sides and behind, coarsely rugose; tubercles whitish; tegulæ piceous-black. Wings hyaline, iridescent, slightly dusky on the apical third; nervures fuscous. Legs black, sericeous; anterior tibiæ with a whitish line in front, the two posterior pairs with a whitish annulus at base, that on the middle pair indistinct in one specimen; tarsi piceous, paler at base. Abdomen elongate, subcylindrical, smooth and polished, immaculate; petiole very short. Length 4 lines; expanse of wings 6 lines.

Two specimens.

Genus *MIMESA*, Shuck.1. *Mimesa argentifrons*, n. sp.

Black; face bright silvery; antennæ fulvous beneath; wings hyaline; metathorax coarsely rugose; second and third segments of abdomen rufous; petiole long and linear.

*Female*.—Black, very minutely punctured; face, clypeus and cheeks silvery, very brilliant; antennæ as long as the head and thorax, slender at base and gradually thickened towards the tips, black above, fulvous beneath. Thorax clothed with a fine silvery pubescence, indistinct on the mesothorax and scutellum, and most obvious on the metathorax, which is coarsely reticulated, the enclosed basal space covered with coarse longitudinal or slightly oblique striæ; mesothorax with two faintly impressed lines in front; tegulæ piceous. Wings hyaline, beautifully iridescent; nervures and stigma black. Legs black or piceous-black, clothed with glittering pubescence; tarsi fulvous. Abdomen oblong-ovate, smooth and polished, sericeous and slightly pubescent at tip, rufous; the petiole, spot on first segment above at base, apical middle of the third, and the apical segments entirely, black or piceous-black; petiole about half the length of the remainder of the abdomen, flattened and slightly grooved above; apical segment flattened above, with the sides subcarinate. Length 4—4½ lines; expanse of wings 7—8 lines.

*Male*.—Smaller and more slender than the female; the tips of the four anterior femora, all the tibiæ except the posterior pair behind, and all of the tarsi, are pale fulvous; the wings are more brilliantly iridescent; the abdomen is more elongated and slender, with the petiole. first segment except tip, an irregular mark across the middle of the second and third segments, and the remaining segments entirely, are black or piceous-black; the apex has an upcurved, ferruginous spine. Length  $3\frac{1}{2}$  lines; expanse of wings  $5\frac{1}{2}$  lines.

Two ♀, one ♂, specimens.

2. *Mimesa proxima*. n. sp.

Black; face silvery; wings hyaline; antennæ beneath and abdomen, except base and apex, fulvous; metathorax finely sculptured; petiole of abdomen short.

*Female*.—Black, thinly clothed with a short, glittering, pale pubescence, with scattered minute punctures; face and clypeus silvery; antennæ rather short, clavate, much thickened towards the tips, the flagellum fulvous beneath. Thorax: metathorax with white pubescence, very finely sculptured, with a deep longitudinal central channel posteriorly, the base finely striated; tegulæ dull testaceous. Wing hyaline, iridescent; nervures fuscous. Legs piceous-black, pubescent; tarsi pale fuscous, the calcaria whitish. Abdomen elongate, shining, subsericeous, rufo-ferruginous; the petiole, base of first segment, and the two apical segments, blackish; petiole short, about as long as the first segment. Length  $3\frac{1}{4}$  lines; expanse of wings 5 lines.

One specimen. Closely related to the preceding, but very distinct by the finely sculptured metathorax.

3. *Mimesa uncinata*. n. sp.

Black; face silvery; wings hyaline; second segment of abdomen rufous.

*Female*.—Black, slender, thinly clothed with a short glittering pubescence; the face and clypeus bright silvery; antennæ as long as the head and thorax, gradually, but not strongly thickened at tips, which are fulvous beneath. Thorax very minutely and sparsely punctured, metathorax finely and longitudinally sculptured, the posterior face unevenly depressed, sides pubescent; tegulæ obscure testaceous. Wings hyaline, beautifully iridescent; nervures black. Legs black, sericeous, the tarsi pale fuscous. Abdomen elongate, subclavate, sericeous, shining black, the second segment orange-ferruginous, dusky at tip; petiole linear, as long as the first segment. Length 3 lines; expanse of wings  $4\frac{1}{2}$  lines.

One specimen. Easily distinguished by the single rufous band on the abdomen.