

cc. Wings spotted.

e. Wings with a quadrate brown spot; abdomen more or less metallic posteriorly . . . . . 18. *macula*, Wiedem.

ee. Wings with narrow brown clouds on the cross-veins and near the end . . . . . 17. *opinator*, sp. n.

E. Small, thinly pilose species; second vein regular, the marginal cell closed near the costa or narrowly open; anterior cross-vein situated near the base of the discal cell; the first posterior cell long; frontal triangle small; the male eyes with enlarged facets above; face concave and tuberculate, conical; scutellum with bristles, often impressed before its tip; no prescutellar bristles.

a. Scutellum yellow, with a preapical impression and a blackish spot at the tip; base of the abdomen light translucent yellow.

b. Mesonotum, except the sides, deep blue-black.

c. Face with a median black stripe . . . . . 27. *lugens*, Wiedem.

cc. Face without median black stripe . . . . . 24. Sp.

bb. Mesonotum wholly reddish-yellow.

d. Wings with a conspicuous triangular blackish spot near the tip in front . . . . . 22. *tympanitis*, Fabr.

dd. Wings yellowish-hyaline, with a minute stigmatic spot. 23. Sp.

aa. Scutellum without noticeable black spot at the tip.

e. Scutellum with a rough, flattened, opaque spot on each side; an impresssion before the apex . . . . . 26. *fuscipennis*, Macq. ?

ee. Scutellum convex, without flattened opaque surface; no preapical impression.

f. Mesonotum deep black, or metallic violet, with the lateral margins yellow . . . . . 28. *purpurifera*, Bigot.

ff. Mesonotum wholly yellow or reddish-yellow . . . . . 25. *pallens*, Wiedem.

## 1. *Volucella castanea*.

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*Volucella castanea*, Bigot, Ann. Soc. Ent. Fr. 1875, p. 476<sup>1</sup>.

*Hab.* MEXICO, Oaxaca (*coll.* Bigot<sup>1</sup>), Jalisco (*Schumann*).

A single specimen from Jalisco, the determination of which does not seem doubtful.

## 2. *Volucella lata*.

? *Volucella lata*, Wiedem. Aussereur. zweifl. Ins. iii. p. 195<sup>1</sup>.

*Volucella (Temnocera) megacephala*, Willist. Synopsis N.-Am. Syrphidae, p. 146<sup>2</sup> (nec Loew).

A very large, thick-set, yellowish species. Face gently convex and receding, without tubercle, produced but little downward; light brownish-yellow, clothed with short, chiefly white, hairs; cheeks of the same colour. Antennæ very small; the third joint scarcely three times as long as wide, almost imperceptibly emarginate in the male, not at all in the female; arista loosely plumose, not twice as long as the joint. Frontal triangle very small, of the colour of the face; eyes of the male contiguous for a long distance, their upper facets markedly larger than the lower ones. Front of the female long, convex, of the colour