With sacs from 0.5 to 1.0 long and indistinct veining—219.

With transparent, clearly veined winglets from 0.8-1.5 —132.

He further states that "the gradation of wing vestiges is, however, perfectly continuous, from small protuberances (without appendages) on the mesothoracic segment to the most developed winglets, with venation approaching that

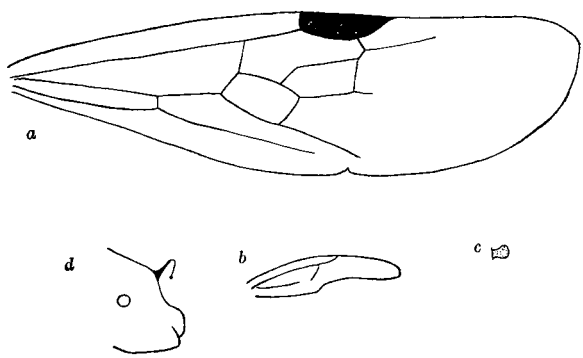

Fig. 2. *a,* wing of queen of *Pogonomyrmex californicus,* Buckley; *b,* wing of pseudogyne shown in Fig. 1, B; *c,* wing of pseudogyne shown in Fig. 1, C; *d,* propodeum of pseudogyne.

of the wing (6 mm. in length) of the mature queen." Brues (1903) distinguishes three types of vestigial wings:

1. Wings having essentially a pupal character, viz, developing as normal wings up to the pupal stage, but failing to expand.

2. Wings essentially normal except for their similar size and less complex venation.

3. Wings consisting of little more than a hollow bag and giving no clue from their appearance as to the probable wing structure of their ancestors.

The vestigial wing (Fig. b) from the first pseudogyne of the series would fall into the second category, while the