

and fore legs, it would retreat backwards and push the dirt still further from the mouth of the cell with its hind legs. In cases where the further progress of the work was stopped by a stone too large for the wasp to remove or dig round, it would abandon it and begin a new hole. Just as soon as it reached the required depth, the wasp flew a few feet to the adjoining bank, and falling upon an *Orchelimum vulgare* or *O. gracile* (two common grass-green katydid-like grasshoppers, about an inch long) stung and paralyzed it instantly, bore it to its nest and was out of sight for a moment, and while in the bottom of its hole must have deposited its egg in its victim. Reappearing, it began to draw the sand back into the hole, scratching it in quite briskly by means of its fore spiny tarsi, while standing on its two hind pairs of legs. It thus threw in half an inch of dirt upon the grasshopper and then flew off. In this way one *Spheex* will make two or three such holes in an afternoon. The walk was hard and composed of coarse sea-gravel, and the rapidity with which the wasp worked her way in with tooth and nail was marvellous."

B. *Petiole more than twice the length of the hind coxæ; radial cellule not extending beyond the third cubital cellule; clypeus in female usually with a slight notch in the middle and a small tooth on each side of it.* (Isodontia, Patton.)

✓ 12. **Spheex azteca.** (Tab. III. figg. 9, 9 a, ♂.)

Spheex aztecus, Saussure, Reise d. Novara, Hymen. p. 38, t. 2. fig. 22 (♀)¹.

Hab. MEXICO, Cordova¹, Valladolid in Yucatan (*Gaumer*).

✓ 13. **Spheex costipennis.** (Tab. III. fig. 10, ♂.)

Spheex costipennis, Spinola, Mem. Accad. di Torino, xiii. p. 54 (1853) (♀)¹; Saussure, Reise d. Novara, Hymen. p. 39².

Spheex petiolata, Smith, Cat. Hymen. Ins. iv. p. 259 (♂)³; Taschenberg, Zeitschr. ges. Nat. Sachs. Thür. xxxiv. p. 417⁴.

Hab. GUATEMALA, San Gerónimo, El Reposo 800 feet (*Champion*); COSTA RICA, Cache (*Rogers*); PANAMA, Bugaba 800 to 1500 feet (*Champion*).—GUIANA, Surinam²; BRAZIL, Novo Friborgo⁴, Pará^{1 2 3}.

✓ 14. **Spheex apicalis.**

Spheex apicalis, Harris, Ins. of Massachusetts¹; Smith, Cat. Hymen. Ins. iv. p. 262 (♂)²; Saussure, Reise d. Novara, Hymen. p. 38 (♂ ♀)³.

Spheex apicalis, var. *mexicana*, Saussure, loc. cit.⁴

Spheex philadelphica, Lepel. de St.-Fargeau, Hist. Nat. Ins. Hymen. iii. p. 340⁵.

Isodontia philadelphica, Patton, Proc. Bost. Soc. Nat. Hist. xx. p. 380⁶.

Hab. NORTH AMERICA, United States^{1 2 3 5 6}.—MEXICO, Orizaba⁴, Jalapa⁴, Cordova⁴.

Saussure says that his var. *mexicana* does not differ in any essential particulars from