

Fig. 11



Fig. 12



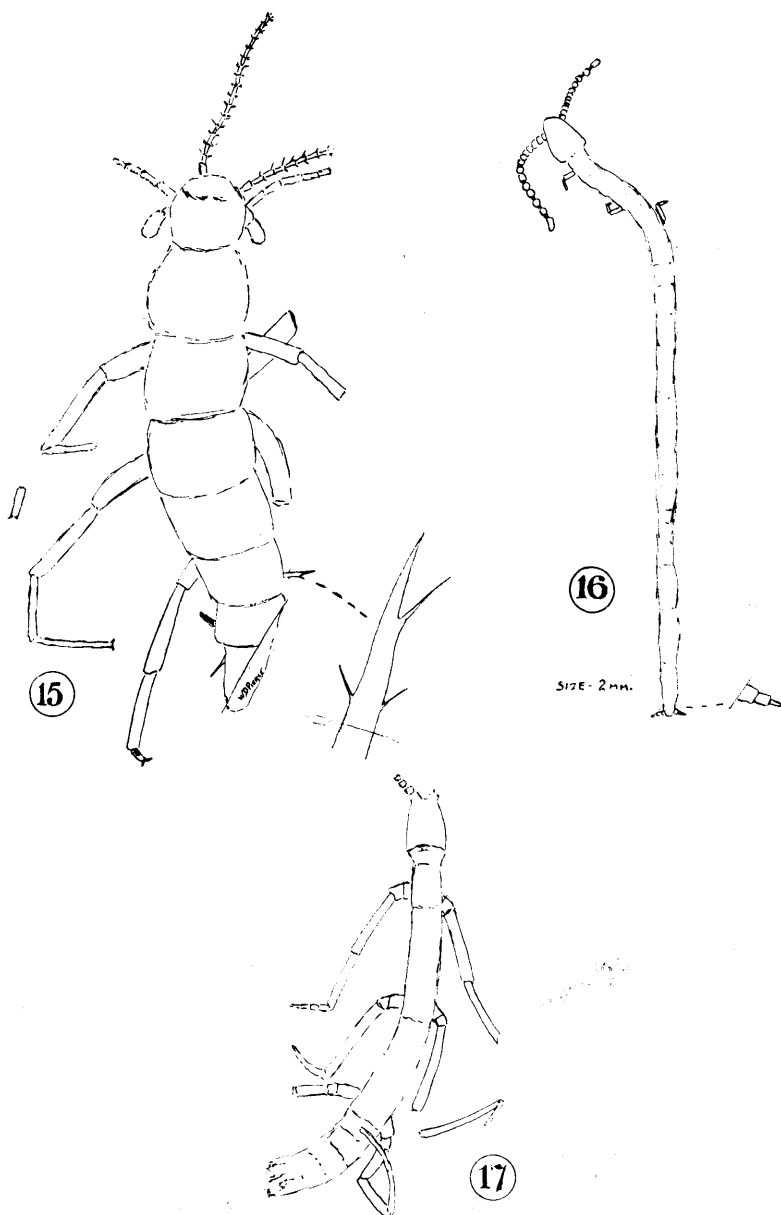
Fig. 13



Fig. 14

## PLATE 17

- Figure 11. *Onychocampodea onychis* Pierce (Specimen BQ 26), length of body 10.56 mm.
- Figure 12. *Onychomachilis fisheri* Pierce (Specimen BQ 7), length of body 5.28 mm.
- Figure 13. *Calcibacunculus tenuis* Pierce (Specimen BQ 25), length of specimen 8.8 mm.
- Figure 14. *Onycholepisma arizonæ* Pierce (Specimen BQ 28), length of body 8.84 mm.



## PLATE 18

Figure 15. *Onychomachilis fisheri* Pierce, detail study.

Figure 16. *Plioprojapyx primitivus* Pierce (Specimen BQ 29), length 2 mm.

Figure 17. *Calcibacunculus tenuis* Pierce, detail study.

Photographs by Louis Athon; drawings by the author.

Forest Yavapai County, Arizona. Found by J. W. Fisher. Specimen BQ 28.

This insect is not well defined but has long antennæ, long caudal filaments, and two shorter caudal cerci.

Body length 8.84 mm., antennæ 3.00 mm., caudal filaments 3.2 mm. width of head 0.56 mm. pro-, meso-, and metanotum 0.80 mm., abdomen at base 0.60 mm. at apex 0.40 mm.

One specimen (BQ 21) is too deep for study, but the scaly surface is evident at one point.

Specimen BQ 10, too deep for study, is either a Machilid or a Lepismatid.

RHABDURA (Silvestri) Handlirsch 1903

CAMPODEIDÆ Westwood 1873

ONYCHOCAMPODEA, new genus

ONYCHOCAMPODEA ONYCHIS, new species (Figure 11)

Type of genus. Specimen BQ 26, fossil in onyx-marble, Bonner Quarry, Kaibab National Forest, Yavapai County, Arizona. Discovered by J. W. Fisher.

Length of body 10.56 mm., antennæ 6.40 mm.

The caudal filaments are not visible.

This is much larger than any known modern Campodeid, but unfortunately none of its characters is describable.

DICELLURA (Haliday) Cook 1896

PROJAPYGIDÆ, Cook 1896

PLIOPROJAPYX, new genus

PLIOPROJAPYX PRIMITIVUS, new species (Figure 16)

Type of genus. Specimen BQ 29, fossil in onyx-marble, Bonner Quarry, Kaibab National Forest, Yavapai County, Arizona. Discovered by J. W. Fisher.

Length of the greatly distended body 2 mm.; head 0.16 mm. long, 0.12 mm. wide. The antennæ seem to be 13-jointed. The caudal cerci extend sideways and are 3-segmented.

PHASMIDA Leach 1815

BACUNCULIDÆ Brunner 1893

CALCIBACUNCULUS, new genus

CALCIBACUNCULUS TENUIS, new species (Figures 13, 17)

Type of genus. Specimen BQ 25, fossil in onyx-marble, Bonner Quarry, Kaibab National Forest, Yavapai County, Arizona, discovered by J. W. Fisher.

Specimen measures 8.80 mm.; head 1.28 mm. long, 0.88 mm. wide; prothorax 0.88 mm. long, 0.80 mm. wide; mesothorax 2.32 mm. long, 0.80 mm. wide; metathorax 2.00 long, 0.80 mm. wide. The posterior part of the abdomen is cut off.

This is either a young walking stick, or an unknown type of primitive insect.

The long head, sharply narrowed behind, with no evidence of eyes, may be considered as the differentiating generic character. Only the base of the antennæ remains. Since this species occurred in the rocks it was very likely a blind insect.

The long thoracic segments, with legs attached posteriorly on each, and the transverse coxæ give this insect a very striking appearance.

The types described in this article have been deposited by Mr. J. W. Fisher, President of the Southwest Onyx and Marble Company of San Diego, in the Paleontomological Collections of the Los Angeles County Museum. Paleontologists will be grateful for his far sighted generosity.

