All the teeth are very small and short, densely set, and form villiform bands. The broadest is that of the maxillary bone, and it is quite uncovered on the sides, no labial folds being developed. The palatine band is broader than the mandibulary, and the vomerine band \wedge -shaped, each arm being bent with the convexity inwards.

Gill-opening and cavity very wide and of an intense black. The gill-rakers are much longer than the laminæ, fifteen in number on the anterior arch, besides some rudimentary ones above.

The dorsal fin commences above the upper end of the gill-opening, with short rays partly hidden in the skin; the rays become longer in the middle of the fin, but remain of moderate length, and the anal rays are still shorter. The pectoral has a rather narrow base, is quite free, and composed of feeble rays; its length is only half that of the head. Ventral rays very feeble, reaching somewhat beyond the root of the pectoral.

Only very few of the thin, cycloid scales have been preserved; they are of moderate size, there being about sixteen in a transverse series running from the vent to the dorsal fin. The lateral line, if it was developed, can no longer be traced.

Blackish, with the fins, head, and abdomen black.

Specimens of this very fine and truly bathybial fish were obtained at great depths on the south-east of New Guinea, off the Philippine Islands, and in the Mid-Atlantic.

Habitat.—Seventy-five miles east-south-east of Raine Island, Station 184; depth, 1400 fathoms. Two specimens, 17 and $4\frac{1}{2}$ inches long.

Philippine Islands, Station 205; depth, 1050 fathoms. One specimen, $5\frac{1}{2}$ inches long.

Mid-Atlantic, Station 107; depth, 1500 fathoms. One specimen, $5\frac{1}{2}$ inches long.

The young specimens are extremely similar to the old, but have a larger eye, which is only one-eighth of the length of the head. The specimen from Station 205 (Philippine Islands) has longer ventral filaments, extending nearly to the vent.

Bathyonus tænia (Pl. XXIII. fig. A).

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The greatest depth of the body is below the origin of the dorsal fin, and about one-third of the length of the trunk, the vent being not quite thrice as distant from the extremity of the tail as from the snout. Therefore the whole fish, and especially the tail, is much attenuated. Head not compressed, low and long, forming four-sevenths of the length of the trunk. Structure of the bones of the head as in *Bathyonus compressus*. Snout rather swollen and broad, the upper jaw but slightly overlapping the lower. Maxillary extending far behind the eye, which is very small, one-third of the length of the snout, about one-fourteenth of that of the head, and one-fourth of the width of the