This form is considerably less than the foregoing, therefore it has to be borne in mind that age may be connected with some of the alterations to be noted. On the whole, however, the distinctions seem to indicate specific separation. The length of the fragment is about 23 mm., and its diameter does not exceed 1 mm. at its widest part.

The cephalic lobe agrees in general outline with the foregoing, but the median ridge is broader, does not extend so far upward (or backward), and the furrows are broader. At the bottom of the latter are pigment-specks. The ventral conical projection is proportionally larger. The proboscis agrees with that of the former in the shape of the bluntly conical papillæ. The three segments behind the buccal are elongated in the specimen, but little weight can be placed on this fact. There are also five segments in the next region, but they do not show a collar anteriorly, though this may likewise have been altered by the preservation.

The hooks (Pl. XXVA. fig. 7) present a much broader crown with more numerous teeth above the great fang. The distal region is, on the whole, shorter than in *Praxilla kerguelensis*, and there is, perhaps, a more evident constriction above the shoulder. The hook somewhat resembles that of *Praxilla lankesteri* (Pl. XXVA. fig. 3).

In transverse section the hypoderm in this species is proportionally thicker than in *Praxilla kerguelensis*, as likewise is the circular muscular coat. The longitudinal ventral muscles cover a larger area than the dorsal, but both are proportionally massive. In several of the anterior sections (Pl. XXXVIIA. fig. 4) the mode in which the proboscidian sheath is slung is clearly shown. By the decussation of fibres from the circular coat in the dorsal median line the thick muscular sheath is fixed dorsally, while its junction with a curved series of fibres passing between the same coat (circular) below and through the dorsal muscles, and from side to side, affords a powerful purchase in extrusion. Bands of fibres from the foregoing platform join the oblique muscles in their progress to the sides of the nerve-area. The latter in some of the sections anteriorly slightly presses the circular coat upward between the ventral longitudinal, but in others the tense circular fibres are nearly transverse in their course across the area. The perivisceral corpuscles are typical.

Praxilla occidentalis, n. sp. (Pl. XXVA. fig. 10).

Habitat.—A fragmentary specimen, apparently belonging to the posterior third of the body, was dredged at Station 45 (off the American coast, near New York), May 3, 1873; lat. 38° 34′ N., long. 72° 10′ W.; depth, 1240 fathoms; bottom temperature 37°·2, surface temperature 49°·5; sea-bottom, blue mud.

All that can be said of it is that the hooks (Pl. XXVA. fig. 10) approach most nearly those of a common species from the Gulf of St. Lawrence. They differ from those of