

considerably shorter than in the British *Protula* from Valentia, on the south-west of Ireland. The posterior bristles are simple slender processes, with a slight curvature at the narrow shortly tapered tip, and traces of wings in the form of lateral lines. Such, therefore, differ very much from the posterior bristles of the British species, with their broad flattened tips.

The anterior hooks (Pl. XXXIA. fig. 18) present the elevated crown of the genus, and it is somewhat more elongated than usual. Anteriorly is a long and minutely serrated region above the great fang, which projects considerably beyond the process below it. The outline of the hook is less triangular than in *Protula lusitanica*, indeed, with the exception of the projecting crown, the outline nearly follows that of a parallelogram.

The intestinal mud presented numerous Diatoms, sponge-spicules, minute Radiolarians, and a few Foraminifera.

The cuticular and hypodermic layers at the anterior third of the body-wall are comparatively thin, a condition very marked in the median line ventrally. Each nerve-cord is situated in the angle formed by the oblique muscle from the lower edge of the longitudinal dorsal, having externally the large neural canal and the longitudinal ventral muscle. The chief part of the area of the body in section is occupied by the alimentary canal, and as wide a hiatus exists between the longitudinal dorsal as between the ventral muscles. The former are about three times as bulky as the latter, and from the inner and inferior border an oblique muscular band passes to the inner edge of the nerve-cord, and completes the sheath for the alimentary canal. The latter is further steadied by a median band dorsally and ventrally, the central vessel in the latter region being situated below its attachment. The longitudinal muscles seem to have a somewhat pennate arrangement of their fibres, as usual in the group. In the posterior region of the body the hypoderm increases in thickness laterally and ventrally, the lamellæ of the latter being of great delicacy. The longitudinal dorsal muscles form flattened plates, still considerably larger than the ventral. The latter have also extended very much, but have the same relations to the nerve-trunks and neural canals.¹ The perivisceral chamber in this region is distended with small ova which press the intestine to the middle line.

Protula americana, n. sp. (Pl. LIV. fig. 3; Pl. XXXIA. figs. 19, 20).

Habitat.—Dredged at Station 49 (south of Halifax, Nova Scotia), May 20, 1873; lat. 43° 3' N., long. 63° 39' W.; depth, 85 fathoms; bottom temperature 35°·0, surface temperature 40°·5; sea-bottom, gravel and stones.

The specimen (removed from the tube) measures 28 mm. in length, and has a transverse diameter anteriorly of 2 mm.

¹ Claparède gives good sections of the body-wall in *Protula intestinum* in his *Recherches sur la struct. des Annel. Sédent.*, pl. viii. figs. 1-7.