

This is the smallest species of Simple Ascidian in the collection, and is probably the smallest species known, with the exception of species of the genus *Perophora*. The surface is entirely covered with a fine coating of sand, so that the body looks simply like a little rounded pellet of sand (Pl. XXII. fig. 11).

The branchial sac is delicate (Pl. XXII. fig. 12), and the internal longitudinal bars are especially slender, but they are numerous. The usual meshes are elongated antero-posteriorly, and contain each three stigmata, but at the right side of the dorsal lamina there is a much wider series of meshes, which contain each about nine stigmata (Pl. XXII. fig. 12). Many of the rows of meshes are divided transversely by delicate membranes.

The dorsal lamina is not ribbed, but the edge is irregular and slightly toothed here and there (Pl. XXII. fig. 12, *d.l.*). The simple filiform tentacles are of about four sizes. There are about twenty of the two largest sizes placed alternately, and between every two of these are two, three or four of the two smaller sizes placed irregularly (Pl. XXII. fig. 13, *tn.* and *tn.'*).

The dorsal tubercle appears very variable. In one specimen examined it was irregularly horse-shoe shaped, with both horns rolled inwards; while in another specimen it was much simpler, being merely an antero-posteriorly elongated aperture, with two slight lateral diverticula (Pl. XXII. figs. 13 and 14, *d.t.*). It is very large, extending across the præbranchial zone to the tentacles, the edges of the aperture being bounded by columnar ciliated epithelium (fig. 14, *d.t.'*). There is a large rounded neural mass placed just behind the apex of the peritubercular area, and formed chiefly of the subneural gland (Pl. XXII. fig. 13, *gl.n.*). The præbranchial zone is rather broad and is semi-transparent, showing the circular and longitudinal muscle bundles of the mantle very distinctly (Pl. XXII. fig. 13, *z.*).

The course of the alimentary canal is shown in figure 15, Plate XXII. The œsophagus is short and curved, and opens into a globular stomach (*st.*), from which the intestine curves ventrally and then anteriorly (*i.*). It does not then turn back posteriorly, but slants across dorsally and anteriorly, to reach the neighbourhood of the atrial aperture. The anus, which is not distant from the œsophageal aperture, has an undulating edge (Pl. XXII. fig. 15, *a.*).

About a dozen specimens of this small species were obtained at Bahia, Brazil, in from 7 to 20 fathoms.

*Polycarpa rigida*, Herdman (Pl. XXIII. figs. 1–2).

*Polycarpa rigida*, Herdman, Prelim. Rep., Proc. Roy. Soc. Edin., 1880–81, p. 76.

*External Appearance.*—The body is oblong and erect, with the anterior end pointed and the dorsal and ventral edges nearly straight and parallel. The posterior end is nearly straight, and is moderately wide, forming the point of attachment. The branchial aperture