body, and are consequently about as far apart as they can possibly be (Pl. XLVII. fig. 7). They look as if they were extremely contracted, and although no traces of lobes are visible they may have been square when opened. Figures 9 and 10 on Plate XLVII. show the branchial and atrial apertures seen from the inside. When magnified about 50 diameters the brown upper surface of the test is seen to be distinctly roughened, and to consist of a yellowish ground mottled with brown and black marks. The lower surface, on the other hand, is of a dull black colour throughout. The test is particularly stiff, and seems almost horny in texture. The musculature in the mantle is well developed (Pl. XLVII. figs. 9, 10).

The branchial sac has the usual open structure with no true stigmata. The meshes are particularly large, and the vessels are wide and membranous. No cilia are visible. The endostyle is distinct; it is of a yellowish colour.

The tentacles are probably eight in number, four of them long and the other four shorter (see Pl. XLVII. fig. 9).

The œsophagus is a plain tube (Pl. XLVII. fig. 8). The stomach is globular and rather large. The intestine is short and wide; it forms a narrow loop. The stomach and intestine are of a yellowish-brown colour.

The only reproductive organs present in the single specimen are in the form of a mass of mature ova of an orange colour attached to the inner surface of the mantle.

Possibly this species, on account of the absence of folds in the branchial sac, ought to be placed in a separate genus from *Bathyoncus*, but the single specimen seems somewhat distorted, and slight folds may possibly be present, consequently I have thought it best to leave the species in the genus *Bathyoncus* for the present.

Styela radicosa (?), Herdman (Pl. XLIX. figs. 9, 10).

Styela radicosa, Herdman, Report upon Challenger Tunicata, part i. p. 163, pl. xxiv. figs. 6, 7.

This specimen, from Station 163, is very like the specimen described as *Styela radicosa* in the First Part of this Report (p. 163, Pl. XXIV. figs. 6, 7) in many of its characters, but does not agree perfectly in all details.

The form of the body is much the same (Pl. XLIX. fig. 9), but the posterior end is not so globular, and the root-like processes of the test are not so well marked. Also, the anterior end does not taper so much, and, as a result, the atrial aperture is placed nearer to the branchial, which is terminal in *Styela radicosa* and decidedly on the ventral edge in the present specimen. Then, again, the transverse wrinkling of the test is very slight, and not so much distributed as in *Styela radicosa*, and the colour is different. It is much darker, being creamy grey in some places and brown in others. It does not become paler towards the posterior end as in the case of *Styela radicosa*.

The length of the body is 2·2 cm., the greatest breadth is 1·5 cm., and the thickness is 0·9 cm.; hence there is considerable lateral compression.