

fig. 10). The apertures are sessile and inconspicuous, and in their present contracted condition appear to be scarcely lobed. The test is coriaceous and tough, coloured dark reddish-brown upon the outside, and white internally.

The folds in the branchial sac are in the same rudimentary condition as in the two preceding species. On the folds there are about five closely placed internal longitudinal bars, and between these regions there are about the same number of bars placed further apart. The meshes in the spaces between the folds are elongated antero-posteriorly, and contain each three stigmata. The transverse vessels are of two very distinct sizes (Pl. XX. fig. 11, *tr.* and *tr.'*) placed alternately, while a still smaller size (*tr.''*), in the form of a delicate bar, stretches across each row of meshes. Very delicate muscle-fibres are visible in the transverse vessels, and also in the fine longitudinal interstigmatic vessels (Pl. XX. fig. 12, which shows also the mode of union of the delicate horizontal bar (*tr.''*) with the internal longitudinal bar, *i.l.*). Figure 13 on Plate XX. represents the posterior end of the ventral edge of the sac, to show the lower extremity of the endostyle (*en.*), and the ridge which is continued from it round the end of the branchial sac to join the posterior extremity of the dorsal lamina. This figure also shows how the internal longitudinal bars (*i.l.*) join the flat membrane at the lower end of the branchial sac.

One specimen of *Styela glans* was dredged in the South Atlantic, off the coast of Buenos Ayres, at Station 320; February 14, 1876; lat. 37° 17' S., long. 53° 52' W.; depth, 600 fathoms; bottom temperature, 2°·7 C.; bottom, hard ground.

*Styela radicata*, n. sp. (Pl. XXIV. figs. 6 and 7).

*External Appearance.*—The body is elongated, ovate or pyriform in shape; it is not compressed, and is attached by the posterior end. The anterior end is produced and pointed, the posterior is broad and rounded, and is prolonged at the edges into several long branched processes for attachment. The dorsal and ventral edges are nearly straight, and converge towards the narrow anterior end; the dorsal is more convex than the ventral. The branchial aperture is terminal; it is sessile but conspicuous, is indistinctly lobed, and is directed anteriorly and ventrally; the atrial is on the dorsal edge, one-third of the way down; it is sessile but conspicuous, and indistinctly lobed, and it is directed dorsally.

The surface is even and nearly smooth, in some places it is finely wrinkled transversely, and more rarely longitudinally; it is slightly corrugated around the branchial and atrial apertures. The colour is made up of various shades of creamy white, buff, and yellowish-brown, being lighter towards the posterior end and darker on the anterior end, and especially around the branchial aperture.

Length (antero-posterior, not including the root-like processes), 4·5 cm.; breadth (dorso-ventral), 2·8 cm.; thickness (lateral, at posterior end), 2·2 cm.