branchial and atrial apertures, which are irregularly four-lobed. The bodies of the Ascidiozooids are slightly elongated antero-posteriorly, are of ellipsoidal form, and are not divided into regions. A large vascular appendage is given off from the posterior end of each.

The Test is firm and cartilaginous. In sections it is of a clear hyaline grey, and is semi-transparent. The matrix is crowded with minute test cells, and is delicately fibrillated. There are no bladder cells. Vessels are abundant, and branch freely; they terminate in ovate swollen bulbs.

The Mantle is strong, and has a well-developed musculature. The muscle bands run in all directions. The branchial and atrial sphincters are strong.

The Branchial Sac is large and well developed. It is not folded, but the internal longitudinal bars are well developed; they have no papillæ. The transverse vessels are moderately wide, and are all of about the same size. In addition there are intermediate much smaller transverse vessels which cross the meshes but do not interrupt the stigmata. Delicate horizontal membranes are present on the transverse vessels. The stigmata are long and narrow, and are arranged with regularity. The meshes are slightly elongated transversely, and contain each about eight stigmata.

The Alimentary Canal is not large. It lies alongside the branchial sac. The stomach is small and globular. It is folded longitudinally.

The Reproductive Organs are in the form of polycarps, which are imbedded in the mantle.

Localities.—(*a*) Station 313, January 20, 1876; lat. 52° 20′ S., long. 67° 39′ W.; depth, 55 fathoms; bottom, sand; bottom temperature, 47°·8 F. (nearly twenty specimens). (*b*) Station 314, January 21, 1876; lat. 51° 35′ S., long. 65° 39′ W.; depth, 70 fathoms; bottom, sand; bottom-temperature, 46° F. (four specimens). (*c*) Station 315, January 26, 1876; lat. 51° 40′ S., long. 57° 50′ W.; depth, 12 fathoms; bottom, sand and gravel (one specimen).

Various specimens collected during the Challenger Expedition, in the neighbourhood of the Strait of Magellan and the Falkland Islands, seem to belong to the species found by Dr. Cunningham in the same localities during the cruise of the "Nassau" in 1866 to 1869, and briefly described in 1871.[1] Cunningham also refers to the species in his work on the Strait of Magellan, and he gives figures showing a colony in surface view and in section, and some of the Ascidiozooids slightly magnified.

I have examined the specimens collected by Cunningham, and now in the British Museum, and have no doubt that the Challenger specimens belong to the same species. As, however, Cunningham's brief description and figures do not give the essential generic and specific characters, beyond the external appearance of the colony, and therefore only

[1] Notes on Reptiles, &c., obtained during the voyage of H.M.S. "Nassau," *Trans. Linn. Soc. Lond.*, vol. xxvii. p. 489.