

Pl. II. fig. 4. The Ascidiozooids are closely packed together, and all lie in the same plane. Each is rudely triangular in shape, with the base external and the apex towards the centre of the colony. Between the four blunt apices a space is left in which lie the young buds. The branchial aperture of each Ascidiozooid opens upon a flat area of test, and between each pair of Ascidiozooids there is a similar flat area of test; thus the eight flattened sides of the colony are formed (Pl. II. fig. 4). At each of the angles of the octagon the test is prolonged outwards to form a pair of closely placed triangular pointed spines. There is a low ridge of test surrounding each of the four flattened areas upon which the branchial apertures of the Ascidiozooids open, and from these ridges shorter triangular spines project upwards at intervals. These are not shown in Pl. II. fig. 4, which represents an optical section.

In surface views of the closed and open ends of the colony they are seen to differ in shape and arrangement of spines both from one another and from the middle of the colony as seen in optical section. The closed end (Pl. II. fig. 2) is rudely quadrangular in shape, and is divided into four nearly equal parts by ridges springing from the middle of the sides and meeting in the centre. Each of the four parts bears two pointed projections on its outer end. These are unequal and irregular in shape, and in one case only one spine is present.

The open end of the colony (Pl. II. fig. 3) is stellate in outline. It has eight points, four of which are rather larger than the intermediate ones. These four are the outer ends of the triangular areas (A_1 to A_4) in which the Ascidiozooids lie, while the four smaller points are the outer ends of the regions of test lying between the Ascidiozooids. Eight ridges of test run inwards from the reëntrant angles between these points, and so divide this end of the colony into eight radially disposed bands. In the centre is placed the common cloacal opening, which is still small. Its edge is crenated, each of the eight ridges forming a projection.

The Ascidiozooids have their ventral sides turned to the closed end of the colony. The branchial sac is large. Its anterior end is very wide, and it tapers to the narrow posterior end (Pl. II. fig. 4). The transverse vessels and internal longitudinal bars of the branchial sac, the sphincter muscle of the branchial aperture, the endostyle, the nerve-ganglion, and the alimentary canal, are all well formed; but no reproductive organs are visible. It is interesting to find that the large ventral tentacle is the only one of the circlet that has made its appearance.

At the posterior end of each Ascidiozooid is seen a small bud attached to a short stolon springing from the body wall close to the posterior end of the endostyle (Pl. II. fig. 4). This colony is evidently very young, and contains only the first four Ascidiozooids formed in the embryo. From the arrangement of the spines and ridges on the test it probably belongs to the same species as the young colony to be described next (No. 2).