

cloacal apertures of small size, and surrounded by six lobes, occur frequently over the surface of the colony. The bodies of the Ascidiozooids are placed vertically in the colony, and are distinctly divided into two regions, thorax and abdomen.

*The Test* is hard and brittle. It is white, and is opaque throughout. The matrix is structureless, and contains large numbers of calcareous spicules and of test cells. The latter are mostly fusiform, or triangular in shape. The spicules are stellate or spherical. They vary somewhat in size and shape. Vessels with swollen ends also occur in the test; they are not numerous, but they occasionally branch near their terminations.

*The Mantle* is thin and membranous. The musculature is feeble.

*The Branchial Sac* is small, but the stigmata are well developed. There are four rows, separated by wide transverse vessels. The stigmata are short but regular.

*The Endostyle* is large and conspicuous.

*The Alimentary Canal* is of considerable size. It forms a narrow loop placed behind the branchial sac.

*The Reproductive Organs* are placed alongside the intestine. The testis is large, and the vas deferens is spirally coiled around it.

*Locality*.—Bahia, Brazil, September, 1873; depth, 7 to 20 fathoms.

One large colony and several smaller ones of this handsome species were obtained in shallow water off Bahia, on the east coast of South America. They incrust Sponges (Pl. XXXVI. fig. 1) and other foreign bodies.

In most cases the colony is a thin expansion attached throughout its entire extent, but in some of the smaller colonies some parts become thickened and form projecting lobes (Pl. XXXVI. fig. 3 shows a section through such a thickened knob). The surface is always smooth and of a pure opaque white colour. The dimensions given above are those of the large colony. The other specimens in the collection are all considerably smaller.

The Ascidozooids are distributed evenly over the surface of the colony, and their anterior ends show distinctly as small circular dots (Pl. XXXVI. fig. 1). The common cloacal apertures are numerous but of very small size. Slight magnification with a lens allows the lobes surrounding both the branchial and the common cloacal apertures to be distinctly seen (Pl. XXXVI. fig. 2, *br.* and *at.*). In both cases there are six, and they are triangular in form; consequently the closed apertures have a stellate appearance.

The abdomen of the Ascidozoid lies nearly directly behind the thorax, and is about equal to it in size (Pl. XXXVI. fig. 3). It extends from one-half to three-fourths of the way from the upper to the lower surface of the colony, except in places where the test is especially thick (Pl. XXXVI. figs. 8 and 3). In such cases the thickening is in the test below the posterior ends of the Ascidiozooids.