The pigmentation of all of these colonies agrees well with that of *Distaplia magnilarva* as described by Della Valle, and differs from that of *Distaplia rosea* where there is no dark colouring, all the pigment being rose-red. From *Distaplia lubrica*, on the other hand, our species is readily distinguished by the entirely different shape of the colony. From the external appearance and colour I should be inclined to refer the Challenger and "Porcupine" specimens to *Distaplia magnilarva*, although in Della Valle's figures[1] the heads are relatively larger and more ovate in shape and the peduncles are very much smaller, but from the small size of the Ascidiozooids and of the tailed larvæ (see below) it is impossible that they can belong to that species. The Ascidiozooids are about 2 mm. in length,[2] and are placed with the long axis extending downwards from the branchial aperture towards the peduncle. The branchial aperture, with its conspicuous white margin, is less than 0·5 mm. in diameter, and the centres of adjacent branchial apertures in the same row are placed about 1 mm. apart (Pl. XVIII. fig. 1). In the "Porcupine" specimen the Ascidiozooids and the branchial apertures are a little larger (Pl. XVIII. fig. 2).

The test is soft and gelatinous in the centre of the colony. The outer layer is firmer, and is very considerably pigmented. The peduncle is the clearest part, but even there small patches of opaque white and dark violet or black pigment are found. The rosy tint of the upper end of the peduncle is due to the posterior ends of some of the Ascidiozooids showing through, and not to red pigment in the test.

In the head this dark pigment is almost entirely confined to the outer firmer layer of the test, the inner part being transparent and of a grey colour. The red and white and black pigmented bodies of the Ascidiozooids show through to a certain extent, and help to make the head, as a whole, more opaque. In the "Porcupine" specimen some parts of the surface layer of test contain a very large amount of red pigment (see Pl. XVIII. fig. 5, *p.c.*), resembling in this respect *Distaplia rosea*.

In its minute structure the test consists of a homogeneous matrix in which are scattered numerous small test cells and larger pigment cells (Pl. XVIII. fig. 4). The test cells are of all shapes, stellate and branched forms being common. The pigment cells are usually ovate or irregularly rounded and very opaque. They show three distinct colours: white, red, and very dark violet or black. The red and the white ones are evenly pigmented all over (Pl. XVIII. fig. 4, *r.p.c.*), while the black ones have the pigment granules usually extending over about one half of the cell, the remainder being clear (Pl. XVIII. fig. 4, *b.p.c.*).

The mantle is fairly strong over the branchial region of the body. On the viscera, however, it is very thin, but is deeply pigmented. The muscle bands are nearly all transverse in direction, and are more regularly placed than in Della Valle's figures of the Ascidiozooids of

[1] Nuove Contribuzioni, &c., Tav. i. figs. 1, 1', 4 and 4'.

[2] Della Valle gives the length of the Ascidiozooid of *Distaplia magnilarva* as 6 mm.