

and sometimes also the dorsal ends of each row the stigmata rapidly become smaller, leaving the transverse vessels with wide triangular ends (Pl. XXVIII. fig. 3, *sg'*.), as in *Distaplia* (compare Pl. XVIII. fig. 3). The languets along the dorsal line of the sac are large triangular flaps flattened antero-posteriorly (Pl. XXVIII. fig. 4, *l.*). In some cases the stigmata extend in an uninterrupted series across the dorsal line. The endostyle is conspicuous and has an undulating course.

The alimentary canal is rather large, but the loop it forms is remarkably short (Pl. XXVIII. fig. 2, *i.*). The œsophagus leaves the dorsal edge of the posterior end of the branchial sac and runs for a short distance backwards. The stomach lies on the dorsal edge of the abdomen. It is short and wide, and its wall is thrown into a series of longitudinal folds (Pl. XXVIII. fig. 2, *st.*). The intestine, which is wide and thin-walled throughout, leaves the posterior end of the stomach and turns at once ventrally and then anteriorly. On reaching the level of the front of the stomach it crosses to the dorsal edge of the abdomen, passing over the left side of the œsophagus, and then turns anteriorly to become the rather short wide rectum which runs along the dorsal edge of the thorax (Pl. XXVIII. fig. 2, *r.*). The intestinal loop is wide and forms the ventral part of the abdomen. The intestine and rectum are filled with dark coloured fœcal matter in their entire length.

The post-abdomen is short and wide (Pl. XXVIII. fig. 2, *p. ab.*). It contains both male and female reproductive organs, the ova being placed at the anterior end, while the spermatic vesicles occupy the remainder of the region. The mature ova are large and of a bright yellow colour. The vas deferens is usually conspicuous. Some of the Ascidiozooids examined contained several large tailed larvæ in the peribranchial cavity. The body of the larva is of nearly globular form, and has two pigmented sense-organs.

*Aplidium despectum*, n. sp. (Pl. XXVIII. figs. 11–13).

*The Colony* is an irregular mass consisting of two rounded pieces connected by a narrow neck. It was attached by a small area at one end. The surface is irregular but fairly smooth. The colour is a pale brownish-grey.

The length is about 2 cm., the greatest breadth 1.3 cm., and the thickness 0.5 cm.

*The Ascidiozooids* are small, and appear to be placed quite irregularly. No systems and no common cloacal apertures are visible.

*The Test* is firm and cartilaginous. It is of a dull grey colour and nearly opaque. The clear matrix is crowded with large test cells, mostly of rounded form and with granular contents. Some of them are slightly pigmented. No bladder cells are present.

*The Mantle* is moderately thick, but not very muscular. It is rather opaque.

*The Branchial Sac* is small and opaque. The stigmata are minute ovate slits placed rather far apart.

*The Post-Abdomen* is short and opaque.