

*Pectyllis*, but is easily distinguished by the blind centripetal canals running from the circular canal, and also by the peculiar side pouches in the periphery of the mouth, and the oral funnels alternating with these (Pl. V. figs. 2-5; Pl. VI. fig. 11). The central œsophagus hangs down from the fundus of the umbrella cavity till past the middle of it in the shape of a quadrangular tube beset above the oral opening with eight pairs of side pouches. The eight radial canals running out from the basis of the stomach unite at the umbrella margin into a circular canal, from which run numerous short blind centripetal canals (Pl. VI. fig. 11).

The quadrate oral opening (figs. 3, 4, *al*; fig. 11 in the middle) is surrounded by a very muscular protuberant oral margin, whose surface has strong folds of the circular muscle (fig. 3, *me*). These folds are divided into four interradian groups by four perradian longitudinal muscles, ending in the four short heart-shaped oral lobes (fig. 3, *al*). Above this muscular oral margin (which is probably very ductile, and adapted for adhesion by suction) appears a very prominent circle of sixteen side pouches ("bursæ buccales," figs. 2-5, *bb*). These form hemispherical, or, more properly, semi-oval evaginations of the gastral wall, and hang together in pairs in such a way that eight pairs appear as oral bifurcated terminal shoots of the eight gastral grooves (*gs*); of these longitudinal grooves of internal wall of the stomach, which proceed above in the fundus of the gastral cavity (figs. 3, 4, *cr*). Each two pairs of side pouches are divided by a peg-shaped oral funnel (infundibulum orale, figs. 2, 4, 5, 10). These conical adradial oral funnels are quite peculiar invaginations of the gastral wall, in a certain measure "internal side pouches" unknown to me in any other Medusa. Their conical cavity, which is cœcal at the point, is lined by the ectoderm, and opens into the umbrella cavity, whilst these "external side pouches" (*bb*) are lined by the endoderm, and open into the oral cavity. Such "external side pouches" are unknown to me in any other Craspedota, but they occur in the Periphyllidæ among the Acraspeda (compare below). The ectodermal external wall of the external side pouches is coloured with violet-brown pigment, and has a broad milk-white dentated longitudinal striation in the middle. The endodermal covering of the oral funnels is coloured milk-white, and sharply contrasted with the dark violet periphery of the oral cavity. The upper part of the gastral cavity into which the gelatinous sphere of the umbrella (fig. 2, *ubr*) projects, appears eight-rayed in the transverse section (fig. 6), as eight adradial longitudinal folds running from the eight oral cavities project inwardly between the eight concave gastral groups into the lumen of the central cavity (*g*). Compare the perradian longitudinal section (fig. 4).

The eight radial canals (figs. 11, 20, *cr*) which run from the basis of the stomach to the umbrella margin, and there open into the circular canal, as well as the circular canal itself (*ce*), and the blind centripetal canals proceeding from it, are not cylindrical tubes, but flattened band-like vessels which are sharply distinguished by their milk-white