

furrow, which corresponds to the middle line of the disk teeth, and of the rhopalar pedalia. Their axial surface forms the outer, almost perpendicular or only slightly overhanging wall of the coronal furrow, whilst their abaxial surface serves for the insertion of the proximal tentacle bulb.

The gelatinous sockels of the sense clubs ("pedalia rhopalaria") alternate regularly with the gelatinous sockels of the tentacles, and form the second middle zone of the umbrella corona (figs. 1, 4, *uo*). They are nearly as large as the tentacular pedalia, somewhat longer but not so thick, and are inserted with their proximal part between the distal sides of the latter. Their upper aboral surface is almost pentagonal, and depressed (fig. 1, *uo*). Their lateral margins are separated by a broad interspace which is filled by the bulb of the tentacle. Its truncated distal margin bears a pair of thin marginal lobes and the rudiment of a sense club in the incision between the pair.

The marginal lobes ("lobi marginales," fig. 4, *l*) form the third or outer zone of the umbrella corona. They amount in number from 38 to 44, as each marginal lobe is inserted between a tentacle and a rhopalium. Their shape is a longish round, 2-3 mm. broad, 5-6 mm. long. The proximal third of each marginal lobe consists of a thick semi-oval gelatinous part, which is merely the distal bifurcation of a rhopalar pedalius. The middle and distal third of the marginal lobe is formed by a very thin membranous, folded marginal border ("patagium," *lp*). This was invariably torn and badly preserved.

The gelatinous disk (*ug*) of *Atolla* is thick and firm (fig. 4, left half, in vertical meridian sections). It has the consistency of a tolerably firm fibrous cartilage. In the central umbrella disk (*uc*) its thickness amounts to 5 mm., even to 10 mm. at the thickest part at the marginal teeth (*er*); whilst immediately outside these, at the thinnest part of the coronal furrow (*ec'*), it is only  $\frac{1}{2}$  mm. The gelatinous substance of the pedalia is from 4-7 mm. thick.

The umbrella margin of *Atolla* includes all the parts lying outside the coronal muscle, and is therefore composed of from nineteen to twenty-two tentacles, the same number of sense clubs alternating with them and twice the number of marginal lobes, inserted between the former and the latter. The rhopalia at the distal margin of the rhopalar pedalia are, however, so small and the two marginal lobes at the distal end of the pedalia, which enclose the rhopalia, are so closely united, that at a superficial glance it looks as if the umbrella margin was merely composed of alternate tentacles and rhopalar pedalia. Closer investigation and comparison with the more completely developed umbrella margin of the closely allied *Collapsis* (System, pl. xxvii.) shows, that the umbrella margin is essentially composed like that of the latter, only that the sense clubs and their pouches have undergone much greater retrograde formation in *Atolla*.

The tentacles (figs. 1-4, *t*) are very weak, hardly half as long as the radius of the umbrella, they are shaped like an awl and finely pointed towards the thin end.