

forms the bottom of the deep coronal furrow. The coronal area of the subumbrella in *Atolla* consequently corresponds exactly to the umbrella corona of the exumbrella, and is likewise divided into three zones: the inner zone of the internal coronal muscle, the middle zone of the external coronal muscle, and the outer zone of the marginal lobes. The broad, strongly-developed coronal muscle ("musculus coronaris") consists in *Atolla*, as in *Collapsis* (System, taf. xxviii.), of two separate sharply-defined halves. The inner coronal muscle ("musculus coronaris internus," *mc*) is 5 mm. broad, thin and delicate, and extends like a veil over the inner zone of the coronal area of the subumbrella. It leaves the proximal third of this zone free, as it does not extend as far as the coronal furrow; it forms at the same time the proximal third of the coronal pouches, which occupy the greater part of this zone. The outer coronal muscle ("musculus coronaris externus," *mc''*) is only 4 mm. broad but extremely thick; like the outer muscle it consists entirely of circular muscular fibres; these are accumulated in many layers one above the other in such a way that they represent a band-shaped circular muscle, 2 mm. thick. This extremely strong fleshy mass belongs to the most powerful muscular formations hitherto observed in the Medusæ (comp. the transverse section, fig. 4, left, *mc''*, and figs. 7, 8, *mc''*). The 19 to 22 deep radial furrows of the subumbral under surface, which correspond to the tentacles, divide the outer coronal muscle into the same number of sections (figs. 2, 3). Whilst the sharply-defined external coronal muscle forms the middle zone of the coronal area of the subumbrella, its external zone occupies the corona of marginal lobes; at the subumbral side of each lobe we find a weaker longitudinal muscle, which radiates into the thin membranous and folded marginal border, the patagium.

The umbrella cavity in *Atolla* is very small, corresponding with the flatness of the disk. As the wide œsophagus reaches to its opening and fills its axial space, the umbrella cavity actually merely consists of the narrow, circular, hollow space, between the external wall of the œsophagus and the corona of genitalia. Between the four perradial mesenteric folds of the stomach (*w*) it is depressed in the form of four conical niches projecting inwards, which may be considered interradian funnel cavities, although only of small extent and depth (figs. 1, 3, *ii*).

The gastrovascular system (figs. 3-6) of *Atolla* is closely allied in many and important respects to that of the foregoing *Nauphanta*, but still shows several peculiarities which remind us partly of the Tesseroniæ (Peromedusæ), partly of the Semostomæ. Of the two principal sections, the axial principal intestine is very simply formed, in the shape of a quadrangular, depending œsophagus, whilst the peripheric coronal intestine shows very complicated formations, and extends in the form of a horizontal corona of pouches, communicating with the axial intestine by four perradial gastral openings.

The central principal intestine ("gaster principalis," figs. 3-6, *g*) forms a short, wide quadrangular œsophagus, which hangs freely from the central part of the umbrella disk,