

we can distinguish sixteen pairs of longitudinal lobe muscles, a pair for each marginal lobe.

From the umbrella being so much vaulted, the umbrella cavity (*w*) is more spacious and higher than in most other Discomedusæ. It is nearly cylindrical in form, as its subumbral side walls rise nearly perpendicular (fig. 14). But as the eight genitalia project like arches towards the inside, it is rather octangularly prismatic. Its upper base is occupied by the subumbral bottom of the stomach (*gw*), its lower bases by the wide opening of the umbrella, surrounded by the corona or marginal lobes. The axial middle space of the proximal half is filled by the pendant œsophagus. The subumbral gastral wall forms four narrow mesenteric folds or mesogonia in a radial direction above, and projects further between them in an interradial direction, so as to form four flat, interradial funnel cavities (fig. 3, *ii*); these are covered over by the four flat pyloric valves (fig. 2, *gi*), which bear the phacellæ (fig. 2, *f*). The special formation of this part is very similar to that of many Cubomedusæ (Charybdeidæ).

In *Nauphanta*, as in Ephyra, the common ancestral form of all Discomedusæ, and in most genera of the family Ephyridæ (all Palephyridæ and Nausithoidea), the umbrella margin (Pl. XXVII. fig. 1; Pl. XXVIII. figs. 12–14) is regularly composed of the following marginal organs:—Eight rhopalia (four perradial and four interradial), eight adradial tentacles alternating with these, and sixteen subradial marginal lobes, inserted between the rhopalia and the tentacles. The number of the sixteen marginal organs, which alternate with the sixteen subradial marginal lobes, is therefore the same here as in *Tesserantha* (Pl. XV.) and *Periphylla* (Pl. XVIII. &c.). Whilst, however, in the Stauromedusa *Tesserantha* all the sixteen marginal organs remain simple tentacles, and in the Peromedusa *Periphylla* the four interradial tentacles are transformed into rhopalia, in our Ephyrida only the eight adradial tentacles appear to be permanent; the eight principal tentacles (four perradial and four interradial) are transformed into the characteristic sense clubs, as in all other Discomedusæ.

The eight sense clubs or rhopalia (figs. 12, 13, *cr*; fig. 20) resemble most strongly those of the most closely allied *Nausithoë*, among all known forms of these organs, though they also agree in many and most important points with those of *Periphylla* (Pl. XVIII.). They are distinguished from those of most other Discomedusæ by their broad, succinct shape. The eight sense clubs lie hidden between each pair of marginal lobes in four perradial and four interradial deep incisions of the umbrella margin, which alternate with the deep tentacular incisions (figs. 12–14). Each rhopalium has, on the whole, the form of a broad tongue-shaped leaf, and is nearly one and a half times as long as broad. In the normal position of the vertical umbrella margin, its free distal end is directed upwards in such a way that the convex abaxial surface looks freely outwards, the concave axial surface freely inwards towards the umbrella cavity. Of the four sense organs which are united in each rhopalium, the olfactory depression lies on the convex