

gelatinous folds, formed by a visible, perradial thickening of the gelatinous supporting plate, and stretching from the sense depression to the free margin of the velum. They keep the velarium suspended horizontally, and can raise it still higher by contraction of their longitudinal muscles. The velarium is divided by the four perradial frenula on the one hand and the four interradial pedalia on the other, into eight adradial octants or "velar lobes." These are homologous in position and morphological importance, with the eight free marginal lobes of the *Pericolpa*, and the eight arms of the *Lucernariæ* (comp. *Lucernaria*, Pls. XVII., XVII., and also my System, taf. xxii., xxiii.). Hence we see that the velarium of the Cubomedusæ corresponds to a corona of eight fused adradial marginal lobes.

The umbrella cavity (figs. 2-6) is almost cubical, corresponding to the subumbrella. Its four vertical sides are formed by the subumbral walls of the four radial pouches, the upper surface by the subumbral gastral walls; the lower surface is occupied by the umbrella-opening, which is strongly contracted by the projecting velarium. The stomach hangs down in the axial space of the umbrella cavity; its peripheric space is divided above into four small interradial funnel cavities ("infundibula"). These are formed in the upper (proximal) part of the umbrella cavity in such a way that they stretch across the four perradial mesogonia (which we shall describe below) from the four corners of the stomach to the middle of the four radial pouches. The frenula of the velarium correspond to these proximal suspensors in the lower distal part; four corresponding niches are sunk as velar funnels between the frenula. The horizontal diameter of the umbrella disk is consequently smallest in the four centripetal projecting perradial lines, largest in the centrifugal projecting interradial lines (along the cathammal septa); the former correspond to the lateral lines of the quadrate, the latter to the diagonal lines.

The pedalia, or gelatinous sockels (figs. 1-5, *wi*), are four peculiarly-shaped interradial gelatinous appendages of the umbrella margin. They bear the tentacles at the distal end, and are sharply defined from them. Gegenbaur terms the sockels of the *Charybdea* "marginal leaves," Fritz Müller "processes of the corner swellings," and Claus "umbrella lobes." Claus compares them erroneously with the marginal lobes of the other Acraspeda. But these true marginal lobes never lie in the principal radia of the first and second order (perradial and interradial), but always between them. On the other hand, the peculiar pedalia of the Cubomedusæ always lie interradially, and can only be compared to the pedalia in the Peromedusæ, which bear both tentacles and sense clubs (comp. above, p. 65). In our *Charybdea murrayana* (figs. 1-5, *wi*) the pedalia are cuneiform or trilaterally prismatic in the upper third, compressed laterally in the two lower thirds, and shaped like a thin longish oval leaf, nearly a third as long as the height of the umbrella; its axial edge is curved concavely, its abaxial edge convexly, whilst its lateral surfaces appear bent unsymmetrically. The tentacle springs from its truncated