

regularly thinning out towards the margin. The exumbrella (or the external convex surface of the umbrella) has a finely punctured appearance, as small round, stinging papillæ are scattered equally over it (fig. 1). The subumbrella (or the inner concave surface of the umbrella) shows a strong annular muscular system, and eight narrow radial or longitudinal muscles, of which four perradial (*mp*) accompany the four radial canals, and four interradial run in the middle between the radial canals (*mi*). Their proximal ends pass into the longitudinal muscles of the stomach and the œsophagus. The velum projects from the umbrella margin towards the interior as a somewhat broad muscular membrane, and narrows the entrance to the umbrella cavity considerably. The umbrella cavity itself is flat and limited in size as the central third of it is occupied by the large gastral pyramid with the reproductive sacs.

The umbrella margin is thickened into a roll, and pigmented red. At the points where the four perradial canals open into the marginal circular canal, the rim of the umbrella margin swells into four thick ocellar-bulbs with dark red pigment. Of these the two opposite are without tentacles, whilst the two others, alternating with the former, bear very long and strong tentacles (fig. 1). These are several times longer than the diameter of the umbrella, cylindrical, thickened like a club at the base, and beset with rings of thread-cells along the entire length.

Gastrovascular system. The central part consists of the quadrangularly pyramidal central stomach, in whose wall the reproductive sacs lie; and of the projecting œsophagus, double the length of the central stomach, from whose basis spring the four multibranched bunches of the oral styles. The peripheric part of the gastrovascular system consists of the four perradial canals which spring from the basis of the central stomach and open into the circular canal at the umbrella margin; a canal passes from the latter into each of the two tentacles, and traverses its whole length. These two tentacle canals, as well as the four radial canals and the circular canal uniting them, are rather narrow and ribbon-shaped, and show nothing special. On the other hand, the central part of the alimentary apparatus has a somewhat complicated construction.

The central stomach (figs. 1-3, *gc*) has the form of a quadrangular pyramid whose height is nearly equal to the diagonal of its basis, and whose truncated end, which has a downward direction, is the starting-point of the long œsophagus and of the four tree-like oral styles. The quadrate basis of the quadrangular stomach pyramid occupies the central third of the subumbrella, and is formed by the lower surface of the gelatinous umbrella; the four radial canals open into the central cavity at the four angles of the square, and pass thence in the form of semi-cylindrical grooves to the four perradial corners of the gastral pyramid. The thickened wall of these grooves forms the midrib of the four leaf-shaped genitalia or pinnated "reproductive leaves."

Genitalia. Each reproductive leaf forms an egg-shaped swelling, with the rounded basis turned upwards and the truncated point turned down. As four to five deep transverse