

same thickness throughout its whole extent (fig. 3). The exumbrella or the outer convex surface of the umbrella is divided by sixteen rim-like radial ribs whose distal ends project lobe-like on the margin of the umbrella, into sixteen deepened radial arcæ or grooves (Pl. III. figs. 1, 2); eight of the sixteen radial ribs correspond with the underlying genitalia and mesogonia (four perradial and four interrarial). The eight principal ribs unite above in the centre of the exumbrella into an eight-rayed star, while the eight remaining adradial ribs which alternate with these do not reach the top of the umbrella. Each two ribs are united at the distal end by a two-limbed clamp; whose intercostal centre turns inwards and downwards (figs. 1, 2). This arching inwards forms the boundary between each two of the sixteen flat marginal lobes, and lies in the ideal prolongation of the sixteen intercostal radial grooves of the exumbrella ("sulci exumbræ"). These form the deepest part of the concave grooves between each two ribs. They are only sharply defined in the middle zone of the exumbrella, and obliterated below and above. A very delicate radial rib runs in the exumbrella between each groove and each rib (fig. 1).

The umbrella margin ("margo umbralis," figs. 1, 2, 4, 10, &c.) is considerably thickened, and even at a superficial view appears divided, more or less clearly, into sixteen flat, slightly convex, projecting lobes, each of whose central points forms the distal end of a radial exumbral rib. The entire margin of the umbrella is continuously beset with numerous tentacles (above a thousand), which are placed one over the other in several rows, and are transformed into short-stalked sucking-cups. Isolated auditory clubs (8 or 16 ?) are placed between them. A very broad velum projects inwards from the ring of cnidæ of the umbrella margin.

The number of marginal tentacles amounts to 1000 or 1200; all bear a terminal sucking-cup. Only a small number of them appear in the form of longer or shorter filaments; in the greater number the filaments part of the tentacle is so much reduced, and the terminal sucking-cup so strongly developed, that they appear as short-stalked or even unstalked suckers ("acetabula"). The distribution of these appendages is very regular and peculiar. Each of the sixteen marginal lobes bears a principal group, composed of three larger sucking-cups and three triangular sucking-plates alternating with them, and in each sucking-plate we can distinguish sixteen to twenty sucking-cups of different sizes (comp. figs. 1, 2, 4, 10). Sixteen very large sucking-cups of the first size are the keystones of the arches, at the end of the sixteen exumbral ribs (fig. 7, *xa*; fig. 10, A). Thirty-two sucking-cups of the second size lie somewhat depressed between them (fig. 8, *xb*; fig. 10, B). Between these two series placed still deeper and with longer stalks there are forty-eight sucking-cups of the third size (fig. 5, *xc*; fig. 10, C). Finally, under these, closely crowded together in a triangular group, are numerous smaller sucking-cups with longer stalks, their number increasing towards the insertion of the velum, while their size diminishes (fig. 6, *xd*). Each of these so-formed "sucking-plates" has a great resemblance to the sucking-plates at