a right angle to the umbrella margin. All eight tentacles have the same form and structure; the four primary perradial tentacles are, however, twice as long as the four secondary interradial, the former are also inserted somewhat higher, and the clasps of the latter are consequently somewhat shorter. The four perradial tentacles are somewhat longer than the largest diameter of the umbrella, the four interradial only about half so long. The free cylindrical tentacle filament (fig. 5, longitudinal section; fig. 6, seen from the outside) is more than a millimeter thick at the base, decreases towards the point like an awl, and is shaped like a mouse's tail ("myosura"). The solid axis resembles a rouleau of coin, and consists of a single row of discoid chordal cells whose nuclei lie in the centre, one behind the other (fig. 5, *ym*; comp. also Pl. XII. figs. 10, 11). The elastic structureless supporting plate enclosing this column of chordal cells (*z*), is covered by a layer of longitudinal muscular fibres (fig. 6, *mt*), above and outside which lies the single layered epithelium of the ectoderm (*d*). The spheroidal nematocysts (*m*) in the exoderm lie thickly together on the dorsal (abaxial) side of the tentacles, and form a raised urticating band (fig. 6, *m*), whilst they are only scantily distributed and of smaller size on the other sides of the tentacles.

The peronia or "umbrella clasps," which serve to connect the base of the tentacle with the urticating ring of the umbrella margin, are eight thick urticating streaks, gradually increasing in breadth from the top to the bottom (figs. 1, 2, 4, *en*). They appear egg-shaped in transverse section (figs. 7, *en*; 12, *en*), and under higher magnifying power they prove to be composed of the peculiar "peronial tissue" or "urticating skeletal tissue," which is the most important element in the urticating ring, and in the peronia and otoporpæ of the Narcomedusæ. This tissue (fig. 12, *en*) consists of compacted exodermal thread cells, varying greatly in shape and size. The roundish thread cells containing nematocysts enclose a long urticating thread, wound thickly and spirally; they have very thick walls, and are partly much larger (three to four times as large) than the ordinary largest nematocysts of the tentacles. These nematocysts are plainly incapable of throwing out their threads, but only serve with their thickened wall as firm "supporting cells." The inner axial side of the peronia is then closed on the exodermal epithelium of the subumbrella (figs. 7, 12, *qw*); also on the peronial canals, touching them laterally (*cts*) by a thick supporting plate, whilst its outer abaxial side touches the gelatinous substance of the umbrella (*wg*).

The tentacle roots (fig. 11, *tr*) are, as usual, conical, being a centripetal prolongation of the tentacle axis, consisting of a few large chordal cells of the endoderm, and having their points directed centripetally. They are covered by a structureless supporting plate, but have no exodermal epithelium. Their dorsal and their lateral surfaces are enclosed in the gelatinous substance of the umbrella, whilst their ventral surface lies immediately on the cover of the stomach (or the dorsal gastral wall), which it serves at the same time to support.