

stage. As in all other Narcomedusæ, the tentacles are solid and fastened in the gelatinous substance of the umbrella by a peculiar "tentacle root." At the point of insertion of the tentacle where the "root" runs into the gelatinous substance, both tentacle and root are in continuous connection with the proximal end of the peronium, whose distal end passes into the urticating ring of the umbrella margin. The muscle and the nerve of the clasp, which maintain direct communication between the nerve ring of the umbrella margin and the tentacles, run on the axial side of the peronium. We may therefore say that the solid dorsally inserted tentacles are composed of three essential parts, which join at the point of insertion, viz., (1) the tentacle filament or the free projecting part; (2) the tentacle root, which is enclosed as a support in the gelatinous substance; and (3) the peronium which maintains the connection with the umbrella margin. The tentacle filament, or the free projecting part of the tentacle (figs. 4, 6 *l*), shows precisely the same structure which we have already described in the solid tentacles of the Pectyllidæ. The endodermal axis, which originates from the endoderm of the circular canal, forms a cylindrical column and consists of a single row of large, clear, discoid chordal cells, lying one above the other like the coins in a rouleau of sovereigns. The conical or carrot-shaped tentacle root (figs. 4, 6, *lr*), a direct process of the endodermal axis, projecting more or less into the gelatinous substance of the umbrella, consists of similar cells. The point of it has a centripetal direction and lies with its lower (umbral) side on the upper (exumbral) side of the gastral pouch, which it likewise serves to support firmly. A structureless septum divides it from the gelatinous substance covering it, and from the adjacent endoderm of the vascular system. The exodermal epithelium of the free tentacle filament, which consists partly of thread cells, partly of sense cells, does not run from its insertion at the root, but passes continuously into the urticating epithelium of the peronium. The urticating cells, which contain nematocysts, are tolerably equally distributed; so are the sense cells, which partly bear cilia or feeling bristles. At the club-shaped swollen distal end of the tentacles, the spheroidal thread cells are more thickly accumulated, and the cilia of the sensitive epithelium considerably prolonged so as to form a thick bunch (fig. 3). The part of the insertion of the tentacle, where filament, root and peronium join, is surrounded as with a collar by a thick semi-circular urticating swelling (figs. 2, 4, 6, *n*).

The twelve auditory clubs of this species, as in all Narcomedusæ, must be regarded as "modified acoustic tentacles" (System der Medusen, p. 307). The four interradial (primary) auditory clubs which lie on the point of the four coronal lobes, are from two to three times as large as the eight adradial (secondary) (fig. 4, *ok*). The free projecting lithocyst is club-shaped, and sits with a thinner short stalk upon a flat roundish "auditory pad" (figs. 4, 6, 7, 8). The solid axis of each auditory club consists of three to four short, broad, discoid endodermal chordal cells, of which the proximal is the smallest, and continuously connected with the endodermal epithelium of the annular canal. The distal end