wall of the medusa presses more closely upon the contents. In the oldest phase which we have observed, the yolk was divided into innumerable masses (*Fig.* 8, *ae*), each of which was from one fourth to one sixth the diameter of those of the last stage. The planula, when fully developed, has an oblong form, like that of Clytia (Orthopyxis) poterium.

The male medusa (Pl. XXX. *Fig.* 17, A B C D, and wood-cut *Fig.* 50) does not have a peduncle like the female, and yet, in one respect, it attains to a higher degree of development than the other sex, inasmuch as it becomes possessed of a proboscidal actinostome (*Fig.* 17, D h^5), which projects at least through three quarters of the axial diameter. As in the female, the reproductive material of the male occupies the space between the outer and inner wall of the medusa, from the beginning of its development (*Fig.* 17, A, *ae*). The medusa develops for a while merely by the gradual separation of the outer wall (β) from the inner one (γ), while the spermatic mass (*ae*) keeps the growing interspace constantly filled. Gradually, however, the inner wall begins to rise above the level of the axis; but instead of forming a saucer-shaped body, it projects pointedly, at first, like a broad, conical papilla (C, h^5), and, finally, becomes, at maturity, a broad cylindrical actinostome (D, h^5). The spermatic mass always fills the medusa to its extreme border, and, consequently, runs out to quite a sharp edge at its base, where the outer (h^1) wall of the medusa meets that of the axis (γ), and, therefore, in a mature state (D), it is more or less broadly and inversely bell-shaped when the medusæ are few; when crowded, they assume a more rounded form (wood-cut, *Fig.* 50). The spermatic particles (Pl. XXXI. A B) have a guitar form (*a*), with a very slender filament (*b*), twelve to fourteen times longer than the body, prolonged from the broader end. We have often found the whole mass of the axis and its medusæ crowded together at the mouth of the calycle (Pl. XXX. *Fig.* 18, *k*), and partly extruded, in a globular mass (A). At first sight, this appearance reminds one of the well-developed female medusæ which Lovèn saw growing at the end of the axis, outside of the calycle of Campanularia (Laomedea) geniculata;[1] but, in our animal, it is merely a breaking loose of the reproductive bodies after they have completed the term of their office.

Fig. 50.

Fertile Hydra of LAOMEDEA AMPHORA, showing how the male medusæ are arranged around the axis of the hydra.

Proles hydroidea.—The mode of development of the hydra of this species is essentially identical with that of Obelia. The representations of the two given

[1] Wiegmann's Archiv, 1837, Tab. VI. *Figs.* 12 and 13; and translated in the Annales des Sciences Naturelles, 1841, Vol. XV. Pl. VIII. *Figs.* 12 and 13.