cylindrical (*Figs.* 1, H, $1^a$, *l*, $1^f$, $2^d$, *l*, and $2^g$, *l*). The walls of the tentacles (*Fig.* 5, *l*) have the same relation to the walls of the body, as those of the reproductive individuals; the outer wall is much thinner, however, than that of the latter, but the inner wall is very thick and solid, like that of Coryne and Clava, and constitutes, as in these genera, a great proportion of the bulk of the tentacles.

The proboscis of the sterile male Hydroid (*Figs.* 2, D, $2^e$, *m*, $2^g$, *p*, and $2^h$) is much longer than that of the female, being rather more than twice as long as the base is broad. It is composed of two walls (*Fig.* $2^h$, *a b*), corresponding to the inner and outer walls of the body, below the head, and like it, its cavity is lined with a loose layer of brownish-red granules. The proboscis of the sterile Hydroid of the female colony (*Fig.* 1, D *p*, 1 *p*), is short and broadly conical, like that of the freshwater Hydra. Whether in individuals of a male or of a female colony, it has great distensibility, either swelling broadly into a great, hollow sphere, with a moderate aperture (*Fig.* $1^d$, *m*) above, or assuming a deep, saucer-shaped form (*Figs.* $1^b$ and $1^c$), with inrolled rim, the lip of the mouth (*m*) being contorted into a three, six, or seven-sided figure, or rolled outward and downward, till the bottom (*Figs.* $1^e$, *m*, and $2^d$, *m*) of its cavity is exposed.

That there is no horny tube, closely enveloping each hydroid, as obtains with Coryne, Tubularia, &c., is evident from the fact, that each individual can contract and shorten itself so much as to be little longer (*Fig.* $2^g$), or no longer (*Fig.* $1^f$), than broad. Nor is there a horny tube or cup around the hydroids, nor a secretion of any sort on the upper side of the uniform layer. If we follow the outer wall (*Figs.* 3, *a*, and 5, $a^1$) of either a reproductive or a sterile individual, from the base of each, we always find it terminating in a uniform, broadly spread, horizontal layer (*Fig.* 5, *a*), which extends through the length and breadth of the colony. Here it is much thicker, as a general thing, than the inner wall of the hydroid, except where it is elevated upon the bristling spines (*Fig.* 6), which arise from the horny network beneath, and there it varies from thick to thin, according as it covers the spinules (*c*), or plunges between them (*a*), even into the interior of the spine, through its lateral apertures. The inner wall of the hydroid (*Figs.* 3, *b*, and 5, *d*) continues below, in the form of a closely anastomosing network of tubes (*Figs.* 5, *b*, $5^a$, *c*, $5^c$, *d*, 6, *b* $b^1$; Pl. XXVI. *Fig.* 18, *b*), imbedded in the uniform layer which we have pointed out as continuous with the outer wall of the hydroid. A transverse section of one of these tubes (*Fig.* $5^c$, *d*), with the surrounding uniform layer (*a*), will give the best idea of the relation of the former to the latter. The walls of these tubes are not absolutely so thick as in their upright

the tentacles in this state, and, on this account, calls the species "*Clavigerum*." There can be no doubt that it is the common Hydractinia echinata of the British coast.