

is, in some respects, somewhat diagrammatic, but is taken from an actual transverse section. The section is taken above the level of the gastrozoid, which hence does not appear. The sac of the gastrozoid is, however, seen in section, together with its radial supports. The dactylozooids seen in section show the three layers of tissue of which they are composed, viz., ectoderm, basement membrane and muscular layer, and endoderm; and sections of their styles are introduced to show the position of these. The two finer reticulations of the cœnosarcal meshwork, inner and outer, are also well seen, with the larger canals in the interval between them, which at this height in the wall of the system are confined to the interspaces between the dactylozooids.

Gonophores.—Male examples only were obtained of the present species. The ampullæ are covered by the surface layer of the ectoderm, and the superficial reticulations of the cœnosarcal meshwork. Within, they contain a sac (Pl. VI. G) in which are developed two or three gonophores of an ovoid form, which are attached to offsets of the cœnosarcal canals, and which show the usual elements characteristic of the various stages in the development of spermatozoa in the family, which elements are massed around a spadix, as in *Sporadopora*. The process of development was not closely followed in the present species.

Astylus, Moseley.

I formed the above genus for a Stylasterid with regular cyclo-systems, dredged off the Meangis Islands in 500 fathoms. The coral is, like *Cryptohelia*, devoid of styles in both kinds of zooids, and differs in structure in no important particular from that genus, with the exception that it has no solid lid-like covering overhanging the mouths of the zooid pores. It possesses, however, a curious tongue-like process deeply seated in the calicle, which probably is the homologue of this lid.

Cœnosteum of *Astylus subviridis*.¹

The cœnosteum (Pl. I. fig. 4) consists of a short stem, which breaks up into a few primary branches. These, with their slender secondary branches and branchlets, which are very few in number, ramify in the same plane, and form a small flabellum. The stem and branches are circular in transverse section throughout their length, except where distorted by the presence of zooid cyclo-systems upon them. They are composed of a hard and compact pearly-white calcareous tissue, the outer surface of which is marked by a series of conspicuous fine rounded ridges, which, separated by

¹ The Hydroid here named *Astylus subviridis* was referred to in my abstract paper on the Structure of the Stylasteridæ (Proc. Roy. Soc., 1876, p. 95) as "a Stylaster resembling *Cryptohelia*."