band in the spectrum when examined spectroscopically. The position of this band was, however, unfortunately not determined.

*Dactylozooids.*—The dactylozooids have bases of closely similar form to those of the dactylozooids in *Stylaster densicaulis* and *Allopora profunda*, and are attached in the same manner within their sacs, with the exception that they have no styles. The free portions of the zooids differ, however, from those in the species just mentioned, in that they are in the contracted condition, longer, more slender, and more gently tapered towards the extremities. Moreover, instead of being retracted within their sacs in a vertical position, *i.e.*, one parallel to the length of the sac, they are in the present form placed out of harm's way by being doubled down within the mouth of the sac of the gastrozooid (Pl. VIII. fig. 1, D Z, D Z). They were observed to be thus doubled down between the pseudosepta and within the gastropore in the fresh corals when dredged.

*Gastrozooids.*—The sac of each gastrozooid is narrowed at the horse-shoe shaped opening, already described as leading, in the cœnosteum, from the upper chamber of the gastropore to the lower chamber in which the gastrozooid lies. The sac is reflected over the surface of the tongue-like process, and passing into the lower chamber, becomes attached to the zooid near the margin of its base. The tongue-like process projects in front of the mouth of the zooid, and must prevent the protrusion of the zooid, except in a crooked direction.

The gastrozooid itself is basin-shaped below, with a cylindrical mass above, the bottom of which gradually expands to join the margin of the basin. The cylindrical upper portion has a flat top perforated by the mouth, which is in the form of a crucial slit, and is abutted on by regularly disposed elongate gastric cells of the endoderm. Numerous large canals are given off from the periphery of the lower basin-shaped portion of the zooid, but none from the under surface of the basin. The disposition of these canals has already been described. The gastrozooids are devoid of tentacles.

*Gonophores.*—Only one specimen of the present form was obtained, and it was of the male sex. The male gonophores appear as large rounded lobulated masses resting within the ampular sacs, and springing from stout offsets of the cœnosarcal meshwork, which pass into the sacs to reach them. Usually two tiers of ampullar sacs encircle each cyclo-system, being contained in the zone of ampullæ described in the account of the cœnosteum.

The minute structure of the lobulated masses is shown in Plate X. fig. 10. A membranous sac derived from the ectoderm, and containing abundant nuclei in its tissue (S), lines the ampullar cavity and encloses the generative lobules. One or two large offsets of the canals of the cœnosarcal meshwork penetrate this sac, and with the ends of these the central mass of the generative structures is continuous. This central mass is composed of spherical nucleated cells filled with granules, and closely