

general plane of the flabellum. This tendency is, however, to a large extent obscured by irregularities. One face of the flabellum, viz., that rendered convex by the curving of the whole mass, is entirely devoid of cyclo-systems; whilst a considerable number are scattered over the surface of the branches on the concave face. As the branches thicken by growth of cœnenchym, the cylindrical masses of the cyclo-systems become buried, and only their free ends remain in view as the mouths of pore systems on the surfaces of the branches. Even these mouths become partially overgrown in the active regions of the coral, and in the older parts of the stem frequently obliterated. The cyclo-systems consist of a deep gastropore, provided with a style, and surrounded by from twelve to sixteen dactylopores. The dactylopores are provided with a small hirsute style, as in *Stylaster densicaulis*.

A diagrammatic view of a cyclo-system, as seen from above the mouths of the pores, is given in Plate II. fig. 13. The styles are supposed to be brought into view by deep focussing of the lens. The form and arrangement of the pores are almost exactly similar to that already described as occurring in *Stylaster*.

The very small ampullæ are spherical cavities, which are usually entirely sunk beneath the surface, but sometimes near enough to it in situation to raise upon it very small conical elevations, which easily escape notice, and are present only here and there. The ampullæ are present in abundance in the walls of the pore systems and at their bases.

Soft structure of *Allopora profunda* (Pl. VI.).

Cœnosarc.—A surface layer of ectoderm covers the surface of the coral, as in *Stylaster densicaulis*, and is reflected into the pores to form the sacs of the zooids. The cœnosarcular canals form a fine superficial reticulation at the surface of the coral, beneath the surface layer, and spring from a deeper meshwork of larger canals which, as in the *Stylaster* already described, have a mainly longitudinal course within the thickness of the walls of the pore systems, parallel to the axes of the systems, and lead almost directly from the bases of the dactylozooids with which they anastomose to the large canal offsets given off at the periphery of the bases of the gastrozooids. At the inner surface of the gastropore are finer canals springing from this main meshwork, and from these spring a series of offsets which pass in a direction radial to the axis of the gastropore, to abut on and become united with the outer surface of the sac of the gastrozoid.

The radial offsets are disposed irregularly, at unequal distances from one another, and at all heights in the gastropore (Pl. VI. R R). The inner ends of the radial offsets are often enlarged where they abut on the wall of the sac of the gastrozoid, and they are often forked at their outer extremities, where they spring from the cœnosarcular meshwork.