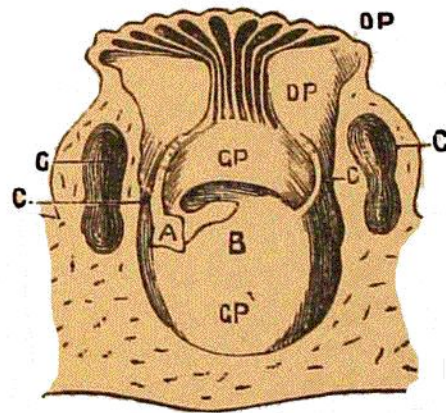


The lower gastropore chamber further communicates, as seen in the figure, at its margins by means of vertical canals with the bottoms of the dactylopores, which are seen above it. Through these vertical canals in the living coral pass large nutritive vessels from the stomach of the gastrozoid all round to join the dactylozooids and nourish them. The slit-like openings of the dactylopores into the upper chamber of the gastropore, allow the dactylozooids to be bent far down into the gastropore to reach the gastrozoid, and deliver food to it.

Around each cyclosystem are grouped a zone of ampullæ, which contain the reproductive elements, and in which, in the case of female colonies, the young are developed. The *ampullæ* are shown cut open in the figure, and marked GG. Thus each cyclosystem is, in the genus *Astylus*, complete in itself. It contains its single gastropore, which placed in the centre nourishes the whole, its zone of dactylopores, and its zone of nurse structures which produce and rear its young. Nevertheless, the numerous cyclosystems of the colony are in communication with one another by a common canal system traversing its branches, and thus each is able to assist the other with nourishment, and any part of the branches thus so perfectly fed is able to increase the size of colony, by growing, and developing on the new twigs fresh cyclosystems as buds. In some other genera of *Stylasteridæ*, various other complications in the grouping and structure of the pores and their zooids occur. In one genus, *Distichopora* (see Diagram 7, *ante*), the gastropores are arranged in regular rows at the edges of the coral branches, and on either side of the row of gastropores is placed a row of dactylopores. The pores are thus everywhere grouped in three parallel rows, and they occur only on the edges of the branches; the rest of the coral surface is devoid of pores altogether.

The *Milleporidæ* and *Stylasteridæ* are so closely allied to one another that I have grouped them together as a sub-order to Hydroid corals (*Hydrocorallinæ*). The *Milleporidæ* all occur in comparatively shallow water, and are reef corals. The *Stylas*



VERTICAL SECTION THROUGH ONE OF THE CYCLOSYSTEMS OF *ASTYLUS SUBVIRIDIS*.

*dp-dp* Dactylopore cavities; *gp* upper gastropore chamber; *gp'* lower gastropore chamber; *cc* canals leading from the gastropore to the dactylopore cavities; *b* tongue-shaped projection; *a* its base cut through; *gg* ampullæ cut open.