

have not the same appearance,—they taper a little, and are roughened with minute warts generally arranged in an imperfectly verticillate fashion; and in their evolution they are less regularly campanulate, one or more being usually in action and moving from the outline of the circle. The stomach is not a distinct sac, but a simple cavity towards the centre of the body, “neither figured nor limited by particular membranes,” and from which the indigestible remains of the food are ejected at the same aperture by which it had entered, for the aperture in the base of the stomach or intestine seems to be appropriated to other offices. And in reference to its relation with the polypidom there is this difference,—the hydraform polype is not connected with the cell by any membrane or ligament, but rather sits free within its miniature cup, retained there only by the gelatinous living pedicle which is prolonged from its base down the sheath, and binds all the polypes of the polypidom in one sympathizing family.

But this description is applicable only to the Hydra itself, and to those compound species which tenant the cups of the plant-like polypidoms embraced in the order Zoophyta hydroida. The polypes of the Asteroid zoophytes, although evidently modelled on the same type, have made considerable advances towards complexity of organization, and their relation to the polypidom is entirely altered. Hitherto the polypidom has been, what its name imports, a cell for retreat in danger, and in ordinary an extravascular insensible sheath to protect the contained animal from the rude contact of the circumfluent element; but now we find it occupying an internal position, and instead of a covering it has become a sort of prop or skeleton to a fleshy crust in which the polypes are immersed. In the Alcyonium this interior support is scarcely to be recognized in some calcareous spicula scattered through the central mass, but in Penatula it forms a bone stretched like a vertebral column from one extremity to the other, and in Gorgonia it is ramified into branches after the manner of a tree. It is this axis, under whatever shape it appears, which is the true analogue of the polypidom of the ascidian and hydraform polypes, although the name certainly has no suitableness here, for the polypes not only cannot nestle in that which is uncellular, but they have no immediate