

low as was once supposed. For, besides the general sense of feeling, some of them have a series of eyes, placed like a necklace around the body, just outside of the tentacles. The yellow prominences in this position on the larger figures in the frontispiece are these eyes. They have crystalline lenses, and a short optic nerve. Yet Actiniæ are not known to have a proper nervous system: their optic nerves, where they exist, are apparently isolated, and not connected with a nervous ring such as exists in the higher Radiate animals.

*Reproduction* is carried forward both by ova and by buds, though the latter method is mostly confined to the coral-making polyps.

The ovarian and spermatic functions belong to the radiating septa in the interior cavity of the Actinia, and to the part of a septum, mesenteric in character, at or near the outer margin. They have the aspect of a pulpy mass, or look like clusters of ovules. The ova have no chance for escape except through the stomach and mouth. They are covered with vibratile cilia, and rove about free for a while. As the development of the embryo goes forward, a depression begins at one end, which deepens and becomes a stomach, with the entrance to it as a mouth. Concurrently, septa grow out from the inner wall, and a few tentacles commence to rise around the mouth. Not unfrequently, the young has already some of its tentacles before it leaves the parent. There is at first but a single row of tentacles; the number increases with the size until the full adult limit is reached, the newer series being successively the outer.

In the budding process, which is of rare occurrence, Actiniæ grow young ones on their sides near the margin of the base. A protuberance begins to rise and soon shows a mouth, and then becomes surrounded by tentacles; and, thus begun, the new Actinia continues to grow, usually until its tentacles have doubled their number, when finally it separates from the parent and independent animal. At times, as Prof. H. James Clark has observed, small pieces of the base of an Actinia separate by a natural process before a trace of a tentacle has