



Fig. 1, *Ideal figure of a Hydra.*

The animal is simply an empty sack, with a mouth. Into this mouth is drawn by the tentacula, various microscopic animalculæ, which happen unluckily to venture within their reach. Once within, they are soon digested into a liquid which is absorbed into the walls of the sack, and contribute to the nourishment and growth of the Hydra. The young seem to grow of their own accord out of the sides of the parent. They "appear at first as knob-like protuberances from the body of the Hydra, they gradually increase in size and come to present something of the form of the parent; an aperture is then seen at the free extremity, and around this, tentacula begin to sprout. The young during their growth are like so many buds upon the sides of the original stock, and the hollow part of each communicates with the internal cavity of the old one, from which they are fed. Even after the tentacula of the bud are sufficiently developed to enable it to obtain food for itself, the communication remains open for a time, as appears from the fact that either of the stomachs is distended when the other is fed. As the bud, however, advances towards completeness, the aperture contracts, and is at last obliterated; the stock itself gradually becomes more slender, and is at last broken by the slightest effort of either the old or the young Hydra, and the latter is then set free, and after roaming through the water for a time attaches itself to a twig or stone and commences life and the rearing of a family on its own account. There is no distinction of sexes, and what is more astonishing, the Hydra may be cut into pieces and each minute fragment will grow into a new and perfect Hydra, and produce young. †

The Hydra is not a true coral animal, and has no hard parts. The reef building animals are marine, and a little more complicated in structure. If we were to imagine a small additional sack hanging down inside of the

* *Polyp*, plural, *Polypi*. The general designation of coral animals, from the Greek, (*polus*,) many, and (*pous*,) foot; the many tentacles of the Polyp being at first considered the feet.

† See Dr. Carpenter's Principles of Comparative Physiology, *HYDRA*, in index.