

height. They are all, with the exception of the hydra or fresh-water polype, marine productions, and are found attached to rocks, shells, sea-weed, other corallines, and to various shell-fish. Many of them appear to be indiscriminate in their choice of the object, but others again make a decided preference. Thus *Thuiaria thuja* prefers the valves of old shells, *Thoa helicina* is more partial to the larger univalves, *Antennularia antennina* grows on rocks, *Campanularia geniculata* delights to cover the broad frond of the tangle with a fairy forest peopled with its myriads of busy polypes, while the *Sertularia pumila* rather loves the more common and coarser wracks. The choice may in part be dependent on their habits, for such as are destined to live in shallow water, or on a shore exposed by the reflux of every tide, are in general vegetable parasites; while the species which spring up in the deep seas must select between rocks, corallines or shells, the depths at which they are found being too great for the vegetation of sea-weed.*

The polypidoms are confervoid and more or less divided, the ramifications being disposed in a variety of elegant plant-like forms. The stem and branches are alike in texture, slender, horny, fistular, and almost always jointed at short and regular intervals, the joint being a mere break in the continuity of the sheath without any character of a proper hinge, and evidently formed by regular periodical interruptions in the growth of the polypidoms. Along their sides, or at the extremities, we find the denticles or cup-like cells of the polypes arranged in a determinate order, either sessile or elevated on a stalk, (Fig. 9, *a*.) Though of the same substance, the cell is something more than a simple expansion of the stem or branch, for near its base there is a distinct partition or diaphragm on which the body of the polype rests, with a plain or tubulous perforation in the centre, through which the connection between the individual polype and

* Lamouroux says,—“ We find some polypidoms placed always on the southern slopes of rocks and never on that towards the east, west, or north. Others, on the contrary, grow only on these exposures, and never on the south. Sometimes their position is varied according to latitude, and the shores inclined towards the south, in temperate or cold countries, produce the same species as the northern exposures in equatorial regions; in general their branches appear directed towards the main sea.”—*Corall. Flex. Introd.* p. L.