

I. ACTINOID POLYPS.

The highest of Actinoid Polyyps are those of the ACTINIA TRIBE—the species that secrete no coral to clog vital action and prevent all locomotion. The details of structure may be best described from the Actinia or Sea-anemone, and afterward the distinguishing characters of the coral-making polyyps may be mentioned. In external aspect and in internal characters all are essentially identical.

I. NON-CORAL-MAKING POLYPS.

As the figures on the frontispiece, and also the following, show, the external parts of an Actinia are—a subcylindrical body—a disk at top—one or more circular series of tentacles making a border to the disk—a mouth, a merely fleshy, toothless opening, at the centre of the disk, sometimes at the summit of a conical prominence—a basal disk for attachment. The upper extremity is called the *actinal* end, since it bears the tentacles or rays, and the lower or base, the *abactinal*.

Sea-anemones vary greatly in colour, and in the distribution of their tints. The lower figure on the frontispiece represents one variety of the *Phymactis clematis* from Valparaiso. Another variety of the same has a rich deep green colour. The upper species on the same plate is one of the gorgeous varieties of the *Phymactis florida* from Callao, Peru. Another is green throughout; and another has a pale bluish-green disk with purplish tentacles, and the papillæ of the body dark sap-green on a pale reddish ground. The other species is the *Bunodes gemma*, from Porto Praya, Cape Verd. It is one of the warty species, and is but partly expanded. The same is shown unexpanded in figure 3a, on the right, with disk and tentacles, as usual in this state, wholly concealed.

While often brilliantly coloured, especially in the tropics, other Actiniæ are nearly colourless. This was the case with that represented in the following cut, a species from Long Island Sound near the New Haven Lighthouse, figured some twenty years since by the author, but left undescribed. The