

full of cerebral matter, sensible to the light without any organ of sight; extremely irritable; alternately contracting and expanding, and thus moving without any apparatus of muscles; with no trace of organization but the tubular rays that surround its mouth, which appear to perform the office of eyes, hands, feet, and lungs; this singular substance lends a clue to form the class into *orders* according to the circumstances in which it is placed.

1. In the common *polypes** of our ditches and stagnant waters, it is a naked branching alimentary sac or canal, without any internal support, and endued with powers of locomotion.

2. In the *Madrepores* and others,† its Maker for mighty purposes has enabled the animal to form for itself a fixed calcareous house or polypary as it is called, consisting often of innumerable cells, each containing a separate individual having a mouth and tentacles, but united to the general body at its other extremity, and each with an external aperture, from which the polypes are protruded, and expand like flowers.

3. In the *Coral* and affinities,‡ the living fleshy crust is spread out upon an internal calcareous axis, which it envelopes as the bark does the tree: the coral is fixed by its base like the preceding tribe; and from this crust, or bark, the tentaculiferous mouths of the polypes emerge. In some the axis appears articulated.

N.B. In these two last the base by which the compound animal is fixed to rocks, or other substances, expands like the base or root of a tree; and by their ramifications these zoophytes, whether the polypary is external or internal, resemble its branching stem.

4. The *Sponges*§ and *Alcyons*|| have been generally ar-

* *Hydra viridis, fusca, &c.*

† *Lamellifera, Lam.*

‡ *Corticifera, Lam.*

§ *Spongia.*

|| *Alcyonium.*