

nothing can be more graceful than the manifold curves and waving lines caused by the motion of the branches and tentacles of this little animal. A community of *Coryne mirabilis* resembles, somewhat, a tuft of moss (Vol. III. Pl. XVII. *Fig.* 1). It attaches itself to almost any thing that comes in its way, whether it be a shell, stone, sea-weed, or a log, and may be found either in pure sea-water, or at the mouths of rivers where there is more or less brackish water. It does not seem to be dependent upon the purity and cleanliness of the water, if it is kept in constant agitation by the ebb and flow of the tide. It is not known by what means the Hydroid attaches itself to any object on which it rests; probably, however, by a kind of agglutination, at the time when the horny sheath of the young is forming. There is no distinct stoloniferous, or creeping portion, apart from the upright branches, such as exists in Campanularians. The stem creeps as far as it can find support, throwing up here and there a minor branch, and then launches out freely, becoming all the more irregular in its divisions, for want of a definite point of attachment, and diverging in every possible direction around an imaginary axis. There does not appear to be any regularity in the mode of branching of the stem, nor any particular angle at which the branches diverge from each other. It is seldom, however, that angles of more than sixty or seventy degrees intervene between any two branches.

A colony of these hydroids may be described as an irregularly branching tube, with club-shaped terminations, commonly called the head, open at the summit, each one of which bears a number of scattered, spirally arranged, tentacles, with globular tips (Pl. XVII. *Figs.* 1 and 1^a). In the spring and autumn, the general appearance of the club-shaped termination is modified by the presence of more or less globular expansions (Pl. XVII. *Figs.* 2, *m md*, 3, *a*, 5, *a a*, and 9, *md*), of various sizes, either intermixed with the tentacles, or on the neck, just below them. These spheroid bodies are the alternate Medusa generation, budding from the heads of the Hydroids, while the Hydroids themselves are developed from the eggs of the free Medusæ. Every such organically connected Hydroid community is either male or female; or, without insisting upon the sexuality of the hydroid form, we may say that every colony bears either only male or only female Medusæ. The club-shaped head may assume an infinite variety of forms, changing, successively, from an exceedingly elongated cylindrical shape (Pl. XVII. *Fig.* 12) to shorter and shorter proportions (Pl. XVII. *Figs.* 4, 11, 3, 5, 2, 6, and 9); or it may be very much inflated at times (*Fig.* 6), showing, indeed, as great a power of extending and contracting as the Actinioids, and perhaps a greater diversity of forms. Below the head, the stem is rather constant in form, being restrained by the rigid, horny sheath (Pl. XVII. *Figs.* 11, *c*, and 15, *c*, and Pl. XX. *Fig.* 2, *c*). The whole community, from the base to the tip of the club-shaped terminations of the branches,