

animals belonging to the genus *Hydra*, of which the *Hydra viridis*, or fresh water polype, (Fig. 59, p. 122) may be taken as the type. This singular animal presents us with perhaps the simplest kind of structure that exists in the animal kingdom. It would almost seem as if nature had formed it with the design of exhibiting to us the resources of vitality in carrying on the functions of animal life without the aid of the complicated apparatus which she has bestowed upon the higher orders of the creation. The Hydra consists merely of a fleshy tube, open at both ends, one of which, being more dilated, may be regarded as the head, and has for a mouth the aperture of the tube, which is furnished at its margin with a single row of tentacula. It thus corresponds to the general definition of a polypus, and exemplifies its most simple form.

The whole body may, on the one hand, be considerably elongated, and, on the other, so much retracted, as to appear a mere globule; and these movements are the effect of a voluntary power in the animal directed to specific ends. The number of tentacula varies from six to twelve; they are slender tubular filaments, capable of being extended to a great length, and of being bent in all directions. In this way, they can quickly surround and grasp any small object which they may happen to touch; and, whenever irritated, they instantly retract, so as hardly to be visible without the aid of a magnifier. Each tentaculum may be moved independently of the rest, at the pleasure of the animal. The remainder of the body tapers gradually from the head to the other extremity, becoming very slender, and having at its termination a flat surface, which has been termed the foot; for although every portion of the surface has the power of adhering to the bodies to which it is applied, it is principally by this extremity that the animal chooses to attach itself to the sides or bottom of the vessel in which it is kept. No trace of the existence of cilia is to be met with on any part of the surface of these animals.

It is to Mr. Trembley of Geneva that we are indebted for the discovery this singular animal, the examination of