

*Halecium*, Oken.*Halecium*, Oken, Lehrbuch d. Naturgesch., 1815.

*Generic Character. Trophosome.*—Colony dendritic, with fascicled or monosiphonic stem. Hydrothecæ replaced by shallow pedunculated cups (hydrophores), too small to receive the hydranths in retraction. Sarcothecæ not present.

*Gonosome.*—Gonophores adelocodonic. Gonangia with terminal or lateral orifice.

There is no more natural and definitely marked genus among the Calyptoblastic Hydroids than that of *Halecium*, with two or three others which must be united with it in one and the same family. The hydrotheca so well developed in other Calyptoblastea is in these genera rudimental, being reduced to the condition of a peduncle, with its distal end expanded so as to form a very shallow membranous cup, quite incapable of receiving the hydranth, even in its state of extreme retraction. The term hydrotheca is thus inapplicable to it, and that of "hydrophore" may be conveniently used to designate the peduncle with its terminal expansion or "limbus."

The primary hydrophore is always immovably fixed by its base to the hydrocaulus, but in most cases it becomes, with the growth of the colony, prolonged by the successive formation of new hydrophores which originate within the limbus of the preceding one, and the primary hydrophore is thus extended by a succession of similar segments piled one on the other in a single continuous series, which is strongly suggestive of a telescope with its tubes drawn out.

The limbus of the hydrophore is in almost every instance ornamented by minute refringent puncta which run round its walls in the form of a circular wreath. What may be their meaning is unknown, but that they are not without significance may be assumed from the constancy of their occurrence. They are found in the most widely separated species, in species in which the limbus is least developed as well as in those in which this part is most obvious, and occur not only in *Halecium* proper but in forms which, though belonging to the same family, must be placed in different genera. Among the various species which I have had an opportunity of examining, there is only one (*Halecium cymiforme*, Pl. VII.) in which I have failed to detect them.

The gonangia of *Halecium* spring in some cases from the proximal or primary segment of a hydrophore, sometimes from the side of a branch, and sometimes as a continuation of its distal end. The orifice is sometimes terminal, sometimes lateral, and there is probably always a difference of form between the gonangia of male and female colonies. In some cases the blastostyle develops from its expanded summit on the outer side of the gonangium a pair of well-formed hydranths with tentacles and mouth, a remarkable phenomenon of which we have no other example in any Hydroid.

In the family of the Haleciidæ must be included a beautiful Hydroid obtained by the Challenger, and forming the type of a new genus, *Diplocyathus* (Pl. VIII.). In the same