

development as the genera distinguished above among the Tubularidæ, and one of these medusæ, that of *Clytia cylindrica*, resembles so closely the genus *Tiaropsis*, that I have, for many months, supposed it to be the young *Tiaropsis*, until this was, also, finally obtained. There can be no doubt now that the naked-eyed medusæ, with free eyes between their tentacles, arise from the creeping Campanularians, referred by Lamouroux to the genus *Clytia*, and by Johnston to the genus *Campanularia* proper. We shall see in the sequel that the branching Campanularians, now mostly referred to the genus *Laomedea*, bear medusæ with similar eyes, but attached to the base of the tentacles, and that the type of *Campanularia dumosa*, which belongs to the genus *Lafœa* of Lamouroux, produces Medusæ without eyes at all, one of which has been described as *Atractylis repens* by Mr. Wright. My son has lately traced the development of a species of Hydroids from our coast, which I have identified with *Lafœa cornuta* Lamour., the type of the genus, originally found in Newfoundland. This establishes, beyond a doubt, the fact that there are several families among the Hydroids thus far referred to the genus *Campanularia*.

SECTION IV.

TIAROPSIS DIADEMATA.

This medusa is already minutely described in my first paper on the *Acalephs* of Massachusetts; I will, therefore, limit myself here to adding a few observations upon the structure of the eyes and reproductive organs, which are not satisfactorily represented in that paper. The form of the black pigment spot (Pl. XXXI. *Figs.* 12, 13, 14, and 15, *c*) which is at the base of the pedunculated eye, is only recognizable when viewed from above, in a line parallel to the axis of the disk (*Fig.* 13, *e*), and then its broad conical outline is apparent; and then only may we see that it occupies the centre of a thickening of the inner wall (*b*), of the edge of the disk, which, with the outer wall (*a'*), forms a broad, rounded prominence above the eye peduncle. The ocular apparatus proper (*Figs.* 12-15, *a''*) hangs from the under side of the disk and just within its edge. When seen from above (*Fig.* 12) or below (*Fig.* 14), it has the form of a battle-door without a handle, and in an end view (*Fig.* 15) it is transversely oval; in fact, it is a thick, transversely oval body, attached to the disk by a short and broad pedicel. The outer wall (*Fig.* 12, *a'*) is in direct continuation with the outer wall (*a*) of the disk; it consists of a single layer of large, hyaline, broad, sharply polygonal cells, which appear like a net-work covering (*Figs.* 13, 14, and 15). These cells are