

even though direct evidence is wanting upon this point. I have already expressed my conviction (p. 217) that some of the Medusæ referred to Sarsia are likely to prove to be the offspring of Tubulariæ, rather than of Coryne; and if this is the case, it will appear, not only that Hydroids which are generically identical produce Medusæ exhibiting congeneric characteristics, but also that the genera of well-defined families agree, in their hydroid as well as in the medusoid state, with one another, in those structural relations which determine their form. A comparison of Tubularia and Corymorpha with the genera described in this chapter, under the names of Hybocodon, Parypha, and Thamnocnidia, shows them to agree in form, or, in other words, to belong to the same family, while they are generically distinct; and so do their free medusæ, as far as they are known. Tubularia Dumortieri forms another distinct genus, to which one of the American species belongs.

Embryology.—The mode of development of the medusæ, from the first budding of the double-walled hernia (*Fig. 4*) to the formation of the radiating tubes (*Fig. 5, c c'*), and the subsequent appearance of the proboscis (*Fig. 11, d*), and the uniting of the radiating tubes to form the circular canal (*b²*), is identical with that of Coryne (Pl. XVIII. *Figs. 1–12*), which we have described so fully in a previous chapter (p. 192). We will not repeat what has been there stated, but simply referring to it, proceed to point out the peculiarities of this genus. About the time that the radiating tubes have developed through four fifths of the depth of the disk (*Fig. 6*), one of their number pushes out laterally, and carrying the outer wall along with it, forms a hernia (*c²*). This hernia continues to grow, until it projects so as nearly to double the transverse diameter of the disk (*Fig. 7*), and its walls (*b¹ c²*) are fully twice as thick as in other parts of the body, when a second hernia (near *c¹*) begins to push out from the side of the first, at a point corresponding to the end of the radiating tube. The second hernia, developing in size (*Fig. 8, b²*), forms a second sinus in the radiating canal, and then is soon followed by another hernia (*Fig. 9, b³*), which rises between the primary one and the disk, and at the same time the first diverticulum (*c²*) has more than doubled the transverse diameter of the disk. Soon a third (*Fig. 10, b²*) and a fourth (*a¹*) hernia appear, successively, near to the disk, whilst the first one (*c*) becomes elongated into the fashion of a tentacle, which is solid at the distal half. As the first medusa continues to develop, the primary hernia, with its tentacle (*Fig. 11, g*), elongates at a corresponding rate, and the second, third, and fourth hernia show their medusoid character by the development of radiating tubes (*f f'*), whilst other hernaï arise at the base of the primary one. Hardly have the second, third, and fourth medusa fairly formed their tubes before each one begins to exhibit a one-sided protrusion from the radiating canal, identical with that noticed