

Fig. 14, and wood-cut 11, *a b*) of the disk gradually grows smaller and smaller by constriction, till finally it is cut through, and the medusa drops from the parent stem, and swims away. Shortly before dropping from the hydra, the medusa becomes very restless; it contracts and expands in rapid succession, by jerks which throw it to and fro about the stem of the hydra. The hydra itself contributes also to the liberation of the medusa, by coiling itself around the peduncle, which still holds the medusa fixed by its abactinal summit to the place from which it has been budding. In thus coiling itself around the base of the medusa, the hydra gradually pushes the medusa off, and the next jerk sets it altogether free. At the time of its birth, the medusa is about one sixteenth of an inch in diameter (Pl. XVIII. *Fig. 15*). For a while the outer and inner walls cling to each other at the point where the peduncle was divided (Pl. XVIII. *Fig. 15^a*, *a*; Pl. XIX. *Fig. 16*, *n*), so that the summit of the medusa exhibits a funnel-shaped depression. As soon as the disk is freed from the restraint of the horny film, the whole animal expands, and the outer wall separates for a considerable distance from the middle one, except where they form the transverse septum, and at the point where they were attached to the parent. At this last-mentioned place, the outer (Pl. XIX. *Fig. 16*, *o o'*) and inner walls (*h'*) are drawn toward each other by their mutual efforts to separate, and the outer one (*o'*) being drawn in, forms a depression (*o*) very often noticed in young Medusæ, whilst the inner one, being drawn out, becomes conical. As they retreat from each other, the depression (Pl. XIX. *Fig. 15*, *o*) becomes deeper, the cone (*h'*) more pointed and higher, and the point of adherence (*n*) less and less, till finally the two walls suddenly separate. The outer one retires till it comes nearly to a level with the surrounding portion, still remaining slightly depressed (wood-cut 25, *a'*, p. 202) and the inner one sinking, the hollow cone disappears. The widely separated outer and middle walls of the medusa just born (Pl. XVIII. *Fig. 15^a*), form a very remarkable feature when contrasted with their relations at a period just before birth (Pl. XVIII. *Fig. 14*), where the outer (wood-cut 17, *a*) and middle (*b*) ones press very closely against each other. It is not possible to say, precisely, at what time the mouth of the proboscis is formed, but it is certainly open (Pl. XVIII. *Fig. 15^a*, *c*) by the time the medusa becomes free. The radiating tubes (Pl. XVIII. *Fig. 15^a*, *c*; Pl. XIX. *Figs. 16*, *c²*, and 17, *b*) are, proportionally, a great deal larger than in the full-grown animal, and have very irregular walls; a peculiarity not noticed in earlier stages, nor in later ones. At the junction of the radiating and circular tubes (Pl. XIX. *Figs. 17*, *b²*, 18, *b*, and 19, *b*), and also where the four radiating tubes mutually empty into the proboscis (Pl. XVIII. *Figs. 16*, *d*, and 17, *d*; Pl. XIX. *Figs. 16*, *i¹*, and 20, *a*), their walls are lined with dense accumulations of dark-brown granules, which are constantly loosening, and circulating with the chymiferous fluid, and finally cast out from the mouth.