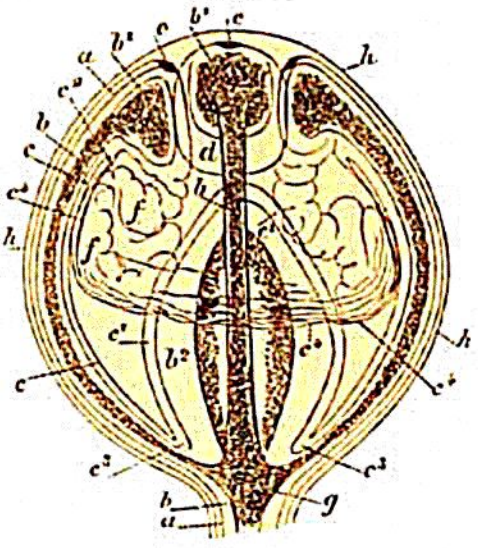
As the medusa grows older, the tentacles (Pl. XVIII. *Fig.* 14, and wood-cut 17, *f*) curl themselves within the cavity of the disk. They are prevented from coming in direct contact with the inner surface (*e*) of the cavity and the procoscis (c^1), by the transverse septum (c^4), which is forced inwards with them. The tentacles might very naturally project outwardly, were it not that they are restrained from doing so by the prolongation of the horny sheath of the hydroid, which envelopes the medusæ very closely with a thin film (*h*). The base of each tentacle is swollen into a large bulb (*d*), the interior of which contains a cavity of considerable capacity (b^1). Here the radiating and circular tubes mutually empty, and here the chymiferous fluid keeps up a continual whirling. At the base of each tentacle, on the outer side, there is a small black mass (*e*) imbedded in the outer wall. This spot, being in the same position as the eye in the adult, must be that organ. The transverse septum (c^4) is very thin, except at its periphery (c^2); in fact, it is not possible, in a profile of its thickness, to see its three component walls. It has great extensibility, and, judging from its numerous wrinkles, it must be in a very lax state, although pushed inwards by the tentacles. The outer (*a*), middle (*b*), and innermost walls (*c*), are much thinner than in the last phase, not only absolutely so, but in proportion to the size of the disk. The proboscis (b^2 c^1) offers nothing remarkable or noteworthy, except, perhaps, that it possesses the power of enormous distension, such as has never been noticed in the free medusæ. As we might naturally suppose, from the present relations of the medusa to its hydroid, the proboscis has no opening at the end.

Fig. 17.



At this time the medusa begins to contract more rapidly, and occasionally with a sudden jerk. The frequency of these jerks increases, as the animal grows older, till very often three or four succeed each other in rapid succession. The enveloping horny film at last is torn open, and allows the medusa to expand more freely, and the tentacles to withdraw themselves from the cavity of the disk, and stretch outwardly. The transverse septum becomes perforated, in the centre, by a hole which rapidly enlarges, till, by the time the medusa has been free two or three days, it equals about one fifth (Pl. XVIII. *Fig.* 17, *a*) of the diameter of the disk. This hole gives ingress and egress to the water, which is forced out as the disk contracts, and rushes in as the disk expands; at the same time the transverse septum is pushed inward or outward, according to the direction in which the water is running. In order to free itself, the peduncular attachment (Pl. XVIII.