

as is generally the case, they contract into little knobs at several points along their length, and bend at sharp angles upon themselves. (Compare wood-cut 29, page 212.)

The peculiarities of the medusoids, which are developed at the latter end of the breeding season, have already been pointed out in brief (page 189). We will here revert to them, and describe the nature of these apparent anomalies in a more detailed manner. The medusoid goes on developing, after the usual manner, for the greater part of the period of its embryonic growth, and then there follows an excess of development in some of the organs, and a deficiency in others. The proboscis grows to an enormous size, so that in the females (Pl. XVII. *Fig.* 16, *n*), with the walls full of eggs, it occupies the whole cavity of the disk, and projects far beyond it; and in the males (Pl. XVIII. *Fig.* 11, *n*), being gorged with mature spermatozoa, it crowds upon the walls of the disk as much as in the females. At this stage it is very active, and constantly changing its shape; at one time the end is sharp (Pl. XVII. *Figs.* 12, 13, 14, and 16), at another blunt (*Fig.* 15), and then broad and pear-shaped (*Fig.* 11). Sometimes it distends itself with chymiferous fluid (*Fig.* 16) till it protrudes far beyond the edge of the disk, and then again suddenly contracts to moderate dimensions. In no instance could a mouth be discovered at the end of the proboscis. The radiating and circular tubes are developed to perfection, and oftentimes the radiating tubes are more than four in number, varying from five (*Figs.* 13 and 15) to seven, and not always arranged symmetrically around the disk. The tentacles vary in the degree of development to which they arrive, some medusoids, in fact, have not any (*Fig.* 13), or only some very slight protuberances in their places (*Fig.* 14, *r*); others have quite prominent papillæ (*Figs.* 11, 15, and 16), growing longer and longer, till, in some instances, we find them with tentacles as long as the disk is high (*Fig.* 12). In the latter cases the tentacles have a stiff, jagged, and awkward appearance, very unlike the graceful and flexible forms of the perfectly formed embryo; nor have they any swelling at the base, nor an eye-speck, but simply a slight thickening of the outer wall (Pl. XIX. *Fig.* 9, *a*), which suddenly thins out below. The eggs, occupying a space between the inner and outer walls (Pl. XVIII. *Fig.* 21^a, *b a*), are discharged by rupturing the outer wall (*a*). The transverse partition (Pl. XVII. *Fig.* 12, *pr*), in some of the more fully developed medusoids at least, has all the perfection of the same organ in well-matured embryos, and may be seen flapping upward and downward as the water rushes in and out with the expansion and contraction of the disk. The withered and wrinkled condition of the majority of these abnormally developed medusoids, justifies the inference that they do not become free, but cast their eggs or spermatozoa, and then shrivel up and die. Some of the more normally developed of these forms (Pl. XVII. *Fig.* 12), perhaps, do at least