

tentacles, three in number, are in different states of development; one is as fully grown as the other tentacles, but the other two have only one prong, the other one being in an incipient state and budding from the base of the other. In regard to the second and third forms, we cannot say whether the prongs grow simultaneously or one from the other; but most probably in both ways.

Rarely there are instances of double-headed embryos (Pl. X. *Figs.* 37 and 37<sup>a</sup>); the one we have illustrated had a digestive cavity common to both heads, and eight tentacles on one head, but only four on the other. We know nothing of the mode of development of this anomaly.

The walls of the body have about the same proportionate thickness as in the last stage; but there are some new features to be noticed here. The bases of four alternate tentacles are prolonged inwardly so as to project, like triangular buttresses (Pl. X<sup>a</sup>. *Fig.* 5 *b*<sup>2</sup>), into the digestive cavity. The breadth of these projections nearly equals that of the base of the tentacles, and they do not extend downwards along the wall of the body much farther than they do laterally, or along the wall of the disk within the circle of the tentacles. They have no relation whatever with the outside of the embryo, but are altogether made up of cells which developed from the inner wall (*b*). The position of these projections corresponds to the base of the first four tentacles.<sup>1</sup>

<sup>1</sup> SIENOLD was the first to discover these projections, which he calls longitudinal swellings (*Längswülste*), and also points out their relation to the first four tentacles. He says that they extend from the base of the tentacles along the wall of the digestive cavity to its very bottom. See his *Beiträge zur Naturgeschichte der Wirbellosen Thiere, Ueber Medusa aurita*, Danzig, 1839. — Sars (Wiegmann's *Archiv*, 1841, vol. 1, pp. 24 and 25, Pl. I. *Figs.* 31, 32, and 33) also calls these projections swellings. He observed them in the scyphostoma of *Aurelia* and *Cyanea*, and agrees with Siebold in regard to their extent, and also their relation to the tentacles. — STEENSTRUP, in his remarkable little work upon alternate generation ("Ueber den Generationswechsel," Copenhagen, 1842, pp. 14 and 15, Pl. I. *Figs.* 35-40), describes an animal which he identifies with the scyphostoma of *Cyanea*, figured by Sars (Wiegmann's *Archiv*, 1841, etc.); but he goes on to point out certain organs, which he previously intimates the latter had overlooked. "Von inneren Organen hat Sars nur vier rundliche

erhabene Längswülste beobachtet," page 14. These organs are, a circular canal which runs along the circle of tentacles, and four other canals running from this, at equal distances apart, to the edge of the aperture in the annular membrane which stretches across the mouth of the bell-shaped disk, and there they join another circular vessel. The four canals which run along the inner surface of the bell, from the apex to the circular canal at the base of the tentacles, he considers to be the same as the four longitudinal ridges in the digestive cavity of Sars's scyphostoma. But when we examine the figures of Steenstrup we are struck with their remarkable resemblance to certain naked-eyed Medusa, especially *Turris*. In *Fig.* 40 we see the pendent proboscis from which the four radiating canals take their rise and pass down the inner surface of the bell to the circular canal at the base of the tentacles. As to the four canals, which, Steenstrup says, run to the aperture of the annular membrane, and the circular ring which they empty into, we feel quite positive that they are nothing but the dupli-