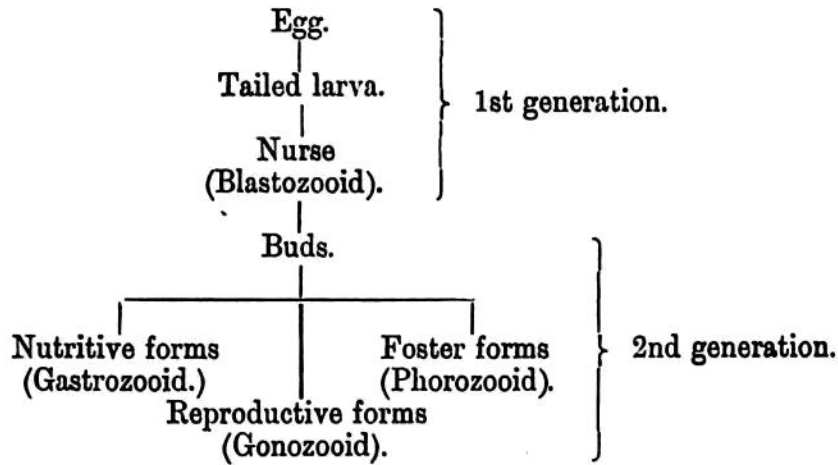


in these forms the reproductive organs become fully developed, thus completing the life-history, which may be represented diagrammatically thus:—



The structure of the reproductive form (Gonozoid) of the sexual generation is shown in the accompanying woodcut.

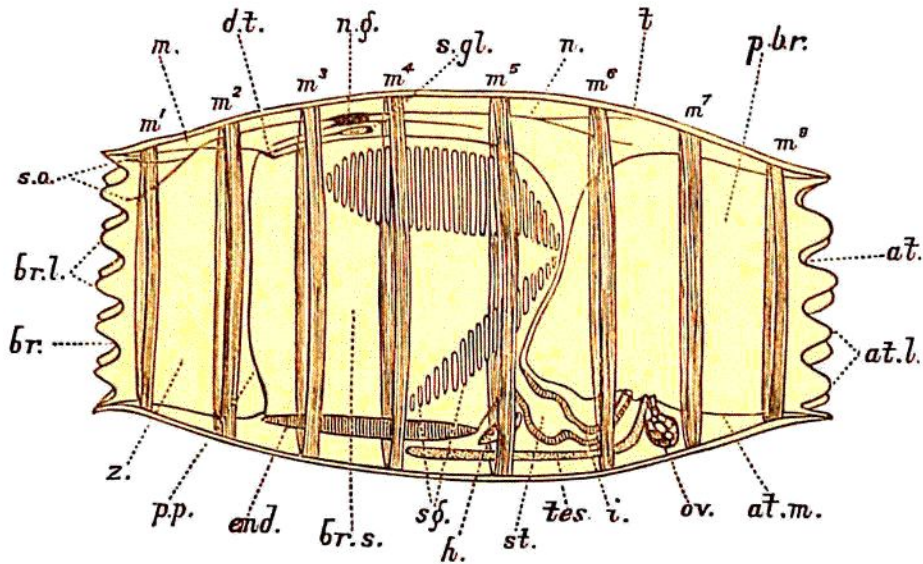


FIG. 6.—Diagram of the Gonozoid of *Doliolum*, from the left side.

at. atrial aperture; at.l. atrial lobes; at.m. membrane lining peribranchial cavity; br. branchial aperture; br.l. branchial lobes; br.s. branchial sac; d.t. dorsal tubercle; end. endostyle; h. heart; i. intestine; m. mantle; m¹—m⁸, muscle bands; n. nerve; n.g. nerve ganglion; ov. ovary; p.br. peribranchial cavity; p.p. peripharyngeal band; s.o. sense organs; t. test; s.gl. subneural gland; st. stomach; tes. testis; z. zona præbranchialis.

The body is of a regular barrel-shape, and has wide-open branchial and atrial apertures at its extremities. These are surrounded by lobes. The test is a very delicate cuticular layer covering the surface of the squamous ectoderm. The mantle has a well-developed musculature in the form of eight muscle bands (Fig. 6, m¹ to m⁸) surrounding the body. The first and eighth of these act as branchial and atrial sphincters, while all the hoop-like muscles combine in causing a current of water to flow through the branchial and peribranchial cavities in such a way as to propel the body through the water.

The branchial sac is wide anteriorly, where it is separated from the combined