The pericardium and the pericardial gill as usual. The yellow coloured chamber of the heart is 2.75 mm. long. The blood gland is greenish-grey coloured, about 7 mm. long by 4 mm. in breadth and ·2 mm. in thickness.—The renal syrinx is brownish-grey, melon-shaped of 3.5 mm diameter with strong internal folds. The urinary chamber as usual. The retractor longus branchiæ and the retractor papillæ analis¹ as usual.

The hermaphrodite gland, by its yellow colour, contrasting markedly with the grey liver, clothes the anterior end and the anterior half of the upper side of this organ with discrete or coalescent lobes; its structure is as usual; the gonoblasts being well developed.—The biconvex anterior genital mass about 6 mm. long by 10 mm. broad and 8 mm. in height; the efferent duct projects, moreover, 1.5 mm. The ampulla of the hermaphrodite duct (Pl. V. fig. 28, a) rests on the upper margin of the genital mass, and is vellow and pear-shaped, 5.5 mm. long (fig. 28, b). The male branch, which arises from the ampulla, runs on the upper margin of the brownish-yellow albuminiparous gland (fig. 28, dd), and is continued in the whitish-yellowish coloured prostate which descends on the anterior end of the genital mass; its total length is 13 mm. and its diameter 1 mm., it is cylindrical or slightly flattened, the upper surface not quite even, the walls thick, the axial cavity therefore rather narrow. From the lower end of the prostate the thin seminal duct takes its course to the genital papilla (fig. 28, e), in the last portion (.75 mm.) it is a trifle wider, and forms the penis (præputium) (fig. 28, f); the whole length of the seminal duct is 8 mm. At the base of the cavity of the yellow præputium is the truncated cylindrical glans, which is about '25 mm. in length by '08 mm. in breadth and '03 mm. at its point. The glans (Pl. IV. figs. 5, 6) has 8-12-15 quincuncially arranged longitudinal rows of fine yellowish hooks, '013 mm. high (Pl. V. figs. 30, 31); this part of the glans, where the hooks are developed, is not continued backward into the seminal duct proper (Pl. IV. fig. 5, a). The spermatheca is spherical, about 3.5 mm. in diameter (fig. 28, g), whitish in colour; its short duct bifurcates. The vaginal duct (fig. 28, h) is thin and quite as long as the vas deferens, behind it becomes a little wider and forms the vagina (fig. 28, i), whose length is about '75 mm.; for about '37 mm. of its length the vagina is lined by a fine brownish cuticle; this portion is about 013 mm. in diameter, widening like a funnel behind and before (fig. 29, aa).² The uterine duct (fig. 28, k) is rather shorter, coiled, resting on the albuminiparous gland, and opens close to the female branch of the ampulla (fig. 28, c); just in front of its opening it receives the short duct of the spherical spermatocyst (fig. 28, l); this organ is whitish in colour and has a diameter of 2 mm.; it was filled with semen. The mucous gland is large, white and yellowishwhite in colour; the albuminiparous gland is free at the upper margin and on the hinder

¹ Loc. cit., 1880, p. 307.

² I have observed a similar condition in *Doriopsis tristis* (op. cit. III. Journ. d. Mus. Godeffroy, Heft viii., 1875. Taf. xi. fig. 5;—IV. Heft xiv., 1878, Taf. ii. fig. 17), and also in *Doriopsis debilis* (Malacolog. Untersuch., loc sit. Supplementheft i., 1880, p. 11, Taf. D. fig. 29).