CONTRIBUTIONS TO AMERICAN HELMINTHOLOGY.

5

being provided on each side, at any rate in the trunk, with short, sometimes branched, diverticula (Fig. 2), which, however, project much less in the most extended condition of the animal. This character seems to be shared by D. dimorphum,⁴ and although present in many Polystomeæ (Epibdella, Diplozoon, Onchocotyle, &c.), is by no means common in Distomeæ.⁵

The ventral sucker is situated 0.8 mm. behind the anterior, and is 0.8 mm. in diameter. Its cavity is deep and gaping during life; frequently its oritice is circular from strong contraction of the radial fibres, usually *shield-shap* ad or triangular.

The excretory system has a large caudal pore, and two much convoluted lateral stems, which run along the sides to the neck. During life I observed that the granules contained in these also circulated through the vacuolated parenchyma of the body, although they did not seem to enter the plexus of fine canals which could be seen immediately under the outermost investment. The parenchyma reminded me of that which I have myself observed, and which has been described by Fol and others, in the foot of embryonic Gastropods. This connection between water-vascular system and parenchyma spaces has been insisted on by Sedgwick Minot.⁶

I have not been able to follow satisfactorily all of the genital organs. The vitellogens (see Fig. 1) are in the form of racemose glands grouped round the intestinal coeca, and occupying the interval between these at the hinder end of the body. The testes (*t*) are two in number, and between them are the ovary, first convolutions of the oviduct, and a retort-shaped receptaculum seminis, from which I am inclined to believe a canal (vagina?) passes upwards towards the back, although I have failed to detect this in my preserved specimens. Towards the right side of the anterior testis is a structure whose function I have not been able to determine. It is possibly the thickened end of the oviduct at its junction with the uterus ; at any rate the thickened tube projects into the bottom of the thin walled uterus, and is subject to a regular and slow evagination of the anterior part of its inner surface, recalling the gradual eversion of the peristome in a Vorticella. This is followed by a rapid retrac-

⁴ Diesing's fig., loc. cit.

Schmarda, Zoologie, attributes this character to D. cygnoides and clavigerum of the Frog;
Pagenstechet's figures (Trematodenlarven und Trematoden) do not corroborate this.
On Distomum crassicolle. Mem. Bost. Soc. N. H., Vol. 111, p. 5.

2 in

he mhe

rst

iat of he nd ım nien lly inre, the \mathbf{in} 1). uce le : , of '0s. ead re-It ior cal. tes-

eep 7 of
