application of the œsophageal epithelium against the muscular tissue most marked (Pl. IV. fig. 3), not even a basement membrane separating the two, whereas a suspension of the intestine by means of the gelatinous tissue is of common occurrence in other forms. The longitudinal sections prove that further back the intestine does not continue as a straight tube as it sometimes does in Palæonemertea, but is constricted (Pl. IV. fig. 2), the constrictions and resulting cæca being, however, much less marked and prominent than in the Schizonemertea and Hoplonemertea.

Right and left of the intestine are situated the two longitudinal blood-spaces, which are direct continuations of the blood-spaces already noticed in the head, and which communicate with these by passages that are encircled, together with the proboscis and its sheath, by the annular nerve ring formed out of the right and left halves of the brain and their superior and inferior commissures.

The arrangement of these spaces has been fully described for *Carinella* by Oudemans,[1] and I may refer to that description, the arrangement being on the whole very much the same. There is no median dorsal blood-vessel in *Carinina*, and there is a very distinct internal epithelium to the longitudinal blood-spaces, two of which are figured on Pl. IV. figs. 2, 5, 6.

Transverse vessels of communication are not present in these two forms. I may perhaps remark that my researches (XIV.) on the development of one of the Schizonemertea have rendered it probable that also in the Palæonemertea we shall have to look upon the blood-spaces in the same light as upon the cavity of the proboscidian sheath, viz., as a direct derivative or continuation of the blastocœle, for which cavities (in the adult state) I have proposed the name of archicœle.

The nephridia are situated partly in the anterior portion of the blood-spaces, another portion traversing the muscular body-wall and leading to the exterior.

In the portion of the paired nephridia exclusive of this excretory duct we may distinguish two distinct parts, one a continuous tube of varying dimensions, formed out of very regularly arranged cells with large nuclei, but not in any way forming a series of perforated cells such as are known in the nephridia of both *Turbellaria* and *Discophora*.

These cells are distinctly ciliated and figured on Pl. IV. figs. 4–6, *Nc*. The structure of the second part of the nephridium is not so easily unravelled, and my preparations of the two specimens do not suffice to reveal all the details. I find it to consist of a cellular mass of spongy appearance protruding along a certain distance into the blood-space, here and there giving evidence of a tubuliform structure, no internal funnels being, however, anywhere recognisable (Pl. IV. figs. 4–6, *N. sp.*).

I must here remark that the researches of Oudemans, who described in detail the arrangement of the nephridia of *Carinella* and *Carinoma*,[2] render it very possible that in

[1] *Quart. Journ. Micr. Sci.*, Suppl. volume, 1885.
[2] *Loc. cit.*, p. 71, pl. i. figs. 4, 5; pl. iii. figs. 56, 57.