the rudimentary notochord will be specially referred to by Mr. Harmer in a note appended to this paper. The view of Professor Sars that this structure cannot be a nervous ganglion, because it does not lie in the substance of the body, would not seem to merit the importance he attaches to it, when the condition of the great nerve-cords and ganglia of Annelids, for instance, are considered. These are purely hypodermic in position, lying between the latter and the basement-layer beneath.

In *Phoronis*, again, a somewhat similar condition to that in *Cephalodiscus* is present, the nervous concentration taking the form of a ring round the mouth at the bases of the tentacles, and this, like the cord running along the foot, is epidermic (hypodermic) in position.[1] The same position (hypodermic) of the nervous system is found in *Balanoglossus*, so that the relations of the nerve-centre are by no means exceptional.

The position of this nervous centre would not appear to correspond with the larval brain of *Loxosoma* as described by Mr. S. F. Harmer. In the stalked or adult *Loxosoma*, again, the ganglion is subœsophageal, and is therefore not the homologue of the larval brain. A very different condition, however, occurs in *Cephalodiscus*, in which the young buds soon present this and all the other organs of the adult, although it is true the development and perhaps metamorphoses of the species from the egg are unknown. It has also to be borne in mind that certain parts of the central nervous system may have been suppressed, and that we may have only a much modified peripheral system remaining.

Sense-Organs.

In the preliminary account of *Cephalodiscus*, the close relation of the so-called "eye-spots" to the ovaries was duly pointed out, and recently the examination of more satisfactory sections made with a microtome demonstrated at once their true nature; viz., that they are oviducts with thick pigmented walls. The resemblance of these structures, both externally and in section, to a modified organ of sight, is one of the most remarkable features in the animal. Their description will be given subsequently.

In *Rhabdopleura*, Lankester mentions the occurrence of five spherical pigment-corpuscles at the superior dorsal margin of the buccal disk, and regards them as rudimentary sense-organs for the perception of light. The position of these is certainly peculiar for organs of vision, but if *Rhabdopleura* has a trace of the central nervous organ observed in *Cephalodiscus*, these would readily be within reach of its communications.

It is interesting that eyes occur in most larval forms of *Loxosoma;* indeed, they make their appearance when the larva is still in the egg. They are situated under the hypoderm, and resemble pigment-masses. In *Loxosoma leptoclini*, for instance, Harmer describes a pigment-spot on each side of the larval brain (even when the lumen is still present after involution). They consist of crescentric reddish-brown masses of pigment, with a

[1] Caldwell, *Proc. Roy. Soc.*, vol. xxxiv. p. 372.