

tion that in certain commissures it was clear that fine nerve-twigs spring from them and serve to innervate the surrounding tissues, their significance thus not being solely commissural. The different facts just recorded are represented semi-diagrammatically on Pl. IX. fig. 10, which was reconstructed from the very large number of sections which I have of this species. It is, moreover, seen in this reconstruction how other peripheral nerves spring from the longitudinal stems as well, some being directed upwards or downwards, some towards the side or inwards. These peripheral stems are metamerial, as are the commissures, a metamery which, though not absolute, and sometimes broken by certain irregularities, is still more advanced towards perfect regularity than is the incipient metamery which we observe in the nerve-tracts that are noticed inside the plexus of the Schizonemertea, and that were more fully described above. The transverse commissures between the lateral stems may be noticed to go up quite close to the brain-lobes, as indicated in the diagram on Pl. IX. fig. 10. Both in this respect and in the fact of their existence, they call to mind the ventral commissural tracts in the plexus of Schizonemertea. I have no doubt that the two systems are homologous, the commissures having subsisted in *Drepanophorus lankesteri* although the plexus has disappeared. Finally, it must be mentioned that as yet I have looked for them in vain in other species of *Drepanophorus*, or in other Hoplonemertea. My other specimens of *Drepanophorus* are, however, less well preserved than is the one specimen of *Drepanophorus lankesteri*.

Another peculiar feature of the peripheral nerve-system of the Challenger Hoplonemertea, which has also remained hitherto unnoticed, is most favourably observed in *Amphiporus marioni*, although I afterwards noticed it in other Hoplonemertea. It is figured on Pl. X. fig. 1, *ne*, and consists in the fact of a peripheral stem, which has taken its outward course away from the longitudinal nerve-trunk, and which has penetrated amongst the pennate fasciculi of longitudinal muscle-fibres of the layer  $\alpha$ , spreading out in a plane parallel to that of the body-surface, and thus forming a kind of local plexus between the muscular layers  $\alpha$  and  $\beta$ . It must for the present remain an open question whether this arrangement, which can be noticed in different regions of the same section, and which in no section was absent, must be regarded as a primitive feature connected with the plexiform arrangement which must have obtained in the ancestral forms of the Hoplonemertea, or whether it is merely a special adaptation, having arisen in certain Hoplonemertea, and being in some way subservient to the innervation of the muscular investment or the integument. At all events it is a peculiar arrangement, and, as such, deserves special mention.

How intricately and yet how regularly the peripheral nerve-system of the Hoplonemertea may be said to be distributed can also be gathered from Moseley's figure of *Pelagonemertes*, which we have copied on Pl. I. fig. 23, where the peripheral nerves are seen to spring, two at a time, from the lateral trunks, which here, too, are united posteriorly by a commissure above the anus.