

however, be remarked that in these most primitive Palæonemertea, the anterior dorsal brain-commissure is less significant than in the Schizonemertea, and hardly anything else than the foremost of those numerous transverse metameric tracts in the plexus (*dvr*, Pl. XVI fig. 1) which connect the lateral stems with the medullary nerve (dorsally) and with each other (ventrally).

These important metameric nerve-pairs are most distinctly observed in *Carinella*. Here, as in the Schizonemertea, the medullary nerve is also continued forwards in front of the brain thickenings. This continuation sometimes shows a short bend just on the level of the commissure, so that both the medullary nerve and its anterior continuation may be seen in one section. This explains at the same time the arrangement traced on Pl. XII. fig. 8. Posteriorly the medullary nerve can be followed down to the hindmost extremity of the body. In *Eupolia* and the Schizonemertea the arrangement remains the same, the metamery of the transverse stems is perhaps more clearly expressed, the whole plexus and the longitudinal stems are no longer in the integument, but between the muscular layers. Still the whole of the nervous system also answers to the general type as represented in the diagrammatic fig. 1 on Pl. XVI.

We have now seen enough of it to understand that a comparison with the central apparatus of the Vertebrate nervous system cannot indeed be called a strained comparison. On the contrary, the comparison is much less artificial than was the one which Balfour was inclined to adopt, and which, as noted above, rendered necessary the acceptance of the phylogenetic development of the Vertebrate medulla out of a *double* cord.

And so I do not hesitate to proclaim the medullary nerve of the Nemertea to be a very important link in the phylogenetic chain, of which the Vertebrate spinal cord is the outcome. Like the Nemertean medulla, the Vertebrate spinal cord is median, unpaired, and composed of nerve-cells and nerve-fibres; like the Nemertean medulla, it is a thickening in a nervous plexus, originally wholly epiblastic, of which, among Vertebrates, the Amphibian embryos offer such a striking example. This instructive and suggestive case was known to Remak and Stricker (as the "Nervenschicht" of the frog embryo), it was more carefully studied and elaborately described by Goette (his "Grundsicht" of the epiblast, in his *Entwicklungsgeschichte der Unke*), and it has been again recently brought into the foreground by Baldwin Spencer, in his latest paper on the subject.<sup>1</sup> The latter author compares the Amphibian plexus with that of Palæonemertea and Schizonemertea (*loc. cit.*, p. 134), as had already been done before him by my friend Professor Ray Lankester, with whose suggestion I at that time (1880) did not yet venture fully to associate myself.

The numerous data that have since been accumulated for a direct comparison of Nemertea with lower Vertebrates appear, however, now to fully justify that comparison

<sup>1</sup> Baldwin Spencer, Some notes on the early Development of *Rana temporaria*, *Quart. Journ. Micr. Sci.*, vol. xxv. Suppl., p. 123, 1885.