

principal ones, and it is this fact that more or less obscures the metamery here alluded to (Pl. XIII. figs. 2, 4). This metamery in the nervous plexus is of the same character as the metamery that is noticed in the intestinal arrangement, in the nephridia, in the generative organs, and in the blood vascular system of the Nemertea; it may indeed be called incipient. To its significance, for the important question of the origin of segmentation, we shall have occasion to return by and by.

Amongst the forms in which I found the metamery to be very distinct, *Cerebratulus angusticeps* stands foremost (Pl. XIV. fig. 1). And I must here call attention to the fact that the transverse stems here described are not only dorsally, but also ventrally, most regular and conspicuous, uniting the longitudinal nerve-stems below the intestine by a regular series of transverse commissures in the plexus, which is the primary connecting medium. It is important to note that there is no ventro-median longitudinal stem in Nemertea opposite the dorso-median one; and not less important, that the same favourable species just named enables me to establish with certainty that the ventral transverse stems reach much further forwards than might originally be expected. The mouth alone interferes with their course; they are, however, found immediately before as well as behind it, and whilst in front of the mouth the lateral stems very soon merge into the lower brain-lobes, it is clearly seen that the transverse commissures are still recognisable, *i.e.*, that the lower brain-lobes are united by thin ventral commissures, separated by a very short distance, till close up to the massive ventral commissure that has been hitherto regarded as the only ventral connection between the brain-lobes. The thin commissures just described are, however, not directly connected with the fibrous core of the brain-lobes, which is, on the contrary, directly continued into the massive inferior commissure, but they seem to derive their fibres from the outer cellular coating of these lobes. They pass underneath the two vagus stems, where these spring from the lower brain-lobes, and where these are in their turn, in front of the mouth, united by transverse commissures, as was noticed above (p. 38, 45; *cf.* Pl. XIV. fig. 5).

The histological description of the plexus may be very short, and has already been touched upon in the beginning of this section. Fibrous and cellular nerve-tissue are very regularly intermixed, the direction of the fibres follows that of the tracts in which they are found, and the fibres are, on the whole, closer together than they are often found in other Platyelminthes, where the designation of the nerve-stems—before they were recognised as such—as “spongiose strands” (spongiöse Balkenstränge) was current, and not inadequate. The nerve-fibres, however, are not so closely bound together, that the bundles are not very frequently found to be pierced by radial contractile fibres, as was noticed above, and is rendered evident by comparison of Pl. XIII. figs. 3, 4, *rf.* That this intermixture is indeed a primitive character may safely be concluded, if we observe that Lang in his monograph on the Polyclada (XVIII) specially mentions similar features in the nervous arrangement of that group of Turbellaria, and also if we remem-