surrounding the œsophagus may very evidently be seen to be in direct connection with that in the head—a fact known to Blanchard, and for the first time fully described by Oudemans (*loc. cit.*), but never adequately figured. This figure, at the same time, demonstrates the projection of the posterior brain-lobe into this blood-space, by the contents of which it is thus bathed.

Another figure reveals how the sections of *Cerebratulus angusticeps* were important in another respect, viz., that of the medio-dorsal medullary nerve and the transverse branches springing from it in metamerically arranged pairs (Pl. XIV. fig. 1). Nor was this regularity exceptional in the region figured; it was characteristic wherever these transverse nerve-tracts (which will be discussed more fully in their relation to the plexus in the special paragraph) were met with, and was thus equally distinct ventrally and dorsally. Ventrally, however, there is no median longitudinal stem.

On the other hand, the transverse tracts in *Cerebratulus angusticeps* may be traced as high up as the lower brain-lobes, which they connect till just behind the strong ventral commissure of these lobes.

These transverse commissural trunks are distinctly separate from those by which the two stems of the vagus nerve are united close to their origin and in front of the mouth. The latter (*cf.* Pl. XIV. fig. 5) are also present as distinct commissures in *Cerebratulus angusticeps.*

With respect to the nephridia, which often offer certain points of comparison for the different species, I must state that the anterior part of the longitudinal duct is very distinctly seen in the horizontal sections through the anterior extremity of the body, and occupies its usual position in the circumœsophageal blood-space, whereas its size or its histological details showed no special features. The deferent ducts of the nephridial system were not contained in this section, nor in those made through the remaining fragments of the further portions of the body. They were very probably situated in the intervening part, which was sacrificed by M'Intosh in drawing up his preliminary notes, and I cannot thus state with certainty whether these ducts were single or more numerous, terminal or not.

To *Cerebratulus angusticeps* I must refer another specimen which came up in the dredge at Station 168 from a depth of 1100 fathoms. It was much torn and lacerated (Pl. I. fig. 15), a phenomenon which it would, however, be rash to attribute to the depth from which it was brought up, although the possibility of that being the cause cannot be wholly excluded. The reasons for identifying the specimens with *Cerebratulus angusticeps* are the following, and are deduced from the comparison of the sections:—(1) The length of the superior brain-lobes stands to that of the posterior in the same (uncommon) relations as in the specimen above described; (2) the ventral and parallel commissures of the inferior brain-lobes are similarly very conspicuous; (3) certain histological details of the superior brain-lobes and ciliated canal, and also of the nerve plexus, are identical; (4) the aspect of the rhynchodæum is very similar.