

distinct nerves are observed arising at an acute angle from the commissures. These innervate the muscles which run from the one segment to the following one.

I give a figure (Plate XVIII. fig. 10) of one of the small ganglia and the nerve fibres arising from it on the inner surface of the integument. I observed these ganglia in *Nymphon* and in *Colossendeis*; they are more numerous in the latter genus, and especially numerous and in a better state of preservation in one of the specimens of *Colossendeis proboscidea*, Sab., dredged last summer north of Scotland. The figure is taken from a part of the integument of a specimen of this species.

To show the minute structure of the ganglia I give in fig. 11 A–F a series of six figures illustrating vertical (frontal) sections through the supra-oesophageal and first thoracic ganglia. As will be easily seen, the sections do not form a complete series, they are only the most interesting out of a series of about twenty. Fig. A represents a section quite at the front of the supra-oesophageal ganglion; a distinct and comparatively thick neurilemma sheath surrounds the whole ganglion, and three distinct medullary nuclei (pointed substance according to Leydig) show the place of origin of the three main nerves. The rest of the section is composed of ganglion cells, with the exception of a small medullary spot at the left side, which does not occur at the other side, and proves that the section is somewhat oblique. Neither the oesophageal commissures nor the first thoracic ganglion are yet to be seen in this section. Fig. B represents a section which passes through the supra-oesophageal ganglion and through the foremost part of the first thoracic ganglion, but not yet through the commissures. Almost the whole section is occupied by the medulla, which forms regular prominences towards the periphery, and only a very small space is occupied by the ganglion cells; *m* is the lobe for the mandibular (antennary) nerve, *o* represents the lobe for the optic nerve, and *x* is a median lobe about the function of which I do not feel quite sure. In section C this median lobe is no longer to be observed, and the optic lobes have here assumed a much more elongated form. In section B the commissures are still totally wanting, but the front part of the first thoracic ganglion, with the medullary nuclei (*p*) for the two infra-proboscideal nerves, are distinct. These in section C are reduced to small lobes, while those for the nerves of the ovigerous legs (*t*) are distinct. In this section the oesophageal commissures are seen, and also the undermost parts of the two optic nerves, which arise from the supra-oesophageal ganglion (*o'*). Their connection with the optic lobes, however, does not occur in this section. Section C passes almost through the middle of the oculiferous tubercle, so that two eyes are placed in front of this section and the two others behind it. Section D represents the last part of the supra-oesophageal ganglion; the hindmost part of the medulla is seen, and the ganglion cells begin again to increase in number. Of the first thoracic ganglion, the section goes through that part of the medullary centrum which gives off the nerves for the ovigerous legs (*l*). In E this medullary centrum is considerably less voluminous, and,