

cords has the appearance of a row of ganglia connected by bundles of nerve fibres. The size of these ganglia is not quite the same over the whole cord, the foremost being slightly larger than those placed more posteriorly. As to their shape, I observed the following two different types. In some of the ganglia the cells are placed on both sides of the bundle, which passes through it, and these ganglia have a very regular rhomboidal form. The other type is represented by those ganglia in which ganglion cells are to be observed only on one side of the nerve bundle, and which accordingly show a triangular form. The triangular ganglia seem to be more numerous in *Colossendeis*, the rhomboidal form in *Nymphon*; in both genera, however, the stout ganglia, which are placed in the front part of the cord, and in the first place the comparatively large ganglion (figs. 6 and 8 *y*) observed by Dohrn are of a distinct rhomboidal form.

The form of the ganglion is, of course, determined by the number of nerves which branch off from it. The different ganglia give off besides numerous smaller nerves, one (in the triangular form) or two (in the rhomboidal) stouter nerves. These run in the foremost part from the one ganglionic bundle to the two others, and form nerve-rings (fig. 6, α^I , α^{II} , α^{III} , &c.), of which the secondary œsophageal ring (figs. 6 and 8 *a*) observed by Dohrn is the first and the stoutest. In *Nymphon robustum* I observed five or six of these nerve rings, but in *Colossendeis* they are still more numerous.

With regard to the three stout proboscideal nerves, which have been observed already by Semper and Dohrn, and which, according to the latter author, terminate in the three ganglia (the front ganglia of my ganglionic bundles), I have ascertained that they are connected with the ganglionic bundles in the following way:—They run superiorly to and quite independently of the ganglionic bundle, till they reach the last but one ganglion of that bundle (fig. 8 *u*). This they enter, their fibres passing through it and contributing to the comparative thickness of that part of the bundle which unites the last but one and the last of the ganglia (fig. 8 *y*). However, it is very probable that at least some of these fibres extend beyond the last of the ganglia. I am not quite certain whether perhaps, a union of the ganglionic cord with the proboscideal nerves does not also take place posteriorly. As I have stated already above, the proboscideal nerve gives off branches; and about the middle of the proboscis of *Colossendeis proboscidea*, Sab. (sp.), on both sides of the stouter middle nerve two thinner cords run parallel with it in its immediate neighbourhood; these are branches of the middle nerve. Investigating the first part of these lateral branches, close to their origin from the main proboscideal nerve, I once observed (in *Colossendeis megalonyx*, Hoek) very small ganglia with thin nerve threads running along this nerve without, however, exchanging fibres; these are, possibly, the end branches of the ganglionic bundle. While the origin of these branches and their connection with the proboscideal nerves is so easily noticed, with regard to their termination I only observed that the bundles, when approaching the end of the proboscis,