this nervous layer the longitudinal muscular coat γ is situated. There is, moreover, present a third longitudinal nerve-stem, also situated, as are the two lateral ones, in this plexus, but medio-dorsally in the vertical plane that passes through the animal. It is this nerve which I have in a former publication (IX) proposed to call the proboscidian-sheath nerve, but of which I will, in the chapter devoted to General Considerations, offer a modified interpretation (p. 131) and which I will henceforth call the medullary nerve.

The nerve-plexus uniting the three longitudinal nerve-stems, as a cylindrical coat of tissue between the longitudinal and the circular layers of muscles, cannot be separated or spread out flat, nor can we succeed in getting horizontal sections of it, just because of this cylindrical curvature. A portion of it may, however, be contained in the few consecutive sections passing in a horizontal plane through the medio-dorsal nerve or elsewhere, tangential to the cylindrical surface of the nerve-plexus.

From such horizontal sections figs. 2, 3, and 4 of Pl. XIII. and fig. 1 of Pl. XIV. have been taken, and where the plexus (*n. pl*) is touched right and left of the medio-dorsal nerve *m*, it has wholly the appearance of a dense network, the meshes of which are more especially due to the fact that radial bundles of contractile tissue—by which the muscular layers and the integument are held together, and which may even pass from the dorsal to the ventral body-wall of the animal—pierce the nerve-plexus. The longitudinal dorsal nerve stands out very boldly in the midst of the plexus. It is extremely important, and may be verified in any other surface section of the nerve-plexus, that from this dorsal nerve spring, both right and left, at more or less regular distances, thicker tracts of nerve-tissue (*tr. n.*), also forming part of the plexus, but being straight instead of tortuous, and having altogether the character of metamerically arranged nerve-stems that are not yet recognisable as independent structures, but that are fairly on the way to special differentiation as so many chief conducting tracts of nervous energy in the midst of the plexiform nervous tissue which binds them together.

The presence of these transverse stems may also be noticed in transverse and longitudinal sections as a local thickening of the plexus, but as the whole stem is rarely attained in one transverse section, this thickening may be followed in consecutive sections, and is found stretching from the medio-dorsal down to the lateral nerve-stems.[1] How far these transverse stems may be said to be metamerically arranged, everyone may judge for himself by consulting fig. 1 of Pl. XIV. The chief tracts are certainly symmetrical, *i.e.*, spring from the longitudinal dorsal medullary nerve at opposite points, and about the same distance may also be seen to separate each successive pair from the foregoing. Other transverse bundles, some thinner, some thicker, some more obliquely placed, &c., but all similarly forming part and portion of the plexus, are, however, visible between the

[1] Von Kennel, who has so considerably advanced our knowledge of the Nemertea, appears to have observed, as early as 1879 (Die in Deutschland gefundenen Landplanarien, p. 39), the presence of certain of these transverse dorsal nerve-stems (commissures, v. Kenn.). He did not, however, notice or describe the nerve-plexus, nor the fact of the existence of a ventral connection, both by means of the plexus and of ventral metameric stems.