

of basement-tissue. On the aboral (dorsal) edge, the hypoderm becomes massive, and terminates in a rounded elevation or ridge, which is separated by a sinus from the narrow hypoderm of the branchial whorls. Beneath the basement-tissue, along the inner curve of the whorl, is a granular layer covering the basal branchial chambers. The first noteworthy change in the latter region is the somewhat foliate arrangement of the hypoderm on the aboral ridge, followed by the disappearance of most of the thick basement-tissue in the middle of the inner lateral (neural) region of each whorl, its place being taken by a finely granular tissue (Pl. III. fig. 2, *nc*), with a faint trace of delicate fibres. This tissue then increases considerably in bulk, and stretches from the edge of the second whorl behind the mouth to the elevated hypodermic ridge posteriorly, round the edge of which it turns. Below it is a line of basement-tissue (*bt*) which stains deeply.

The furrow between the elevated aboral ridge and an inner (*i.e.* nearer the middle line) one now formed by the nephridial duct of the side deepens, so that the nervous tissue in the former is more evidently distinguished as a somewhat clavate expansion in transverse section (Pl. III. fig. 2). From the middle of the latter fine fibres pass orally to the ciliated chamber, and the portion of the nerve-mass in front (*i.e.* on the oral side) lies in connection with its thick and richly-folded hypoderm. The supporting basement-tissue externally is thicker and stronger, and gives attachment to the radial muscles of the branchial fan in front.

This nerve-centre rests on a broad plate of basement-tissue which extends from the nephridia forward to the centre of the whorl on each side (Pl. III. fig. 1, *bt*)—thus forming a support for both organs. The portion of the nervous system in the hypodermic tissue on the outer side of the nephridial groove (which at a higher level constitutes an elevated ridge) now forms a separate longitudinal band with much pigment externally. By and by the anterior and central part of the nervous apparatus becomes lost in the tissue near the ciliated space, though broad fibrous bands and cells are visible for some distance backward (Pl. II. fig. 1, *w*). The separate band (Pl. II. fig. 2, *nt*), again, follows the nephridial channels—lying on the inner border of the hypoderm for a short distance, spreads out on the lateral region of the body, as a thin layer over the basement-tissue, and then gradually disappears. These bands are therefore narrow in front and expanded posteriorly.

On the outer side of the diminished borders of the second branchial whorls, as they commence right and left of the median line, is a prominent process or flap (Pl. III. figs. 1 and 3, *cb*). Viewed from the neural (or anal) side, the hypoderm at the base of the whorl is greatly increased, and approaching the median fissure it becomes free, and forms a thick button-like flap with a large aperture, and with much pigment on the free edge. It is finely hypodermic in structure, and is continuous with that tissue covering the base of the whorl. It contains a considerable chamber, which communicates