

substance and fills up the central area of the body in transverse section to an unusual extent, as pointed out by Professor Moseley.

“ Besides the organs mentioned by this author within the body-cavity, a large number of granular nerve-cords run outwards to the surface (muscular wall), besides fine fibres, which are very apt to assume a coiled or zig-zag appearance. Some of these much resemble blood-vessels, but they are probably nerves, and they divide into fine branches towards the muscular coat.

“ The proboscidian sheath or chamber is very large, and its anterior aperture would seem to be unusually distinct. The structure of the parts in unrolling of the organ is the same as in the others, and the wall of the chamber presents continual circular internal longitudinal fibres; the posterior region of the proboscis is firmly fixed as usual to the internal wall of the proboscidian sheath at its narrow posterior end. The fibres of attachment are short, so that the *cul-de-sac* of the posterior chamber is brought close to the surface of the wall of the sheath. From the appearance of the parts posteriorly, it is possible that the region is in process of repair after laceration. Indeed, it is not unlikely that both anterior and posterior ends can easily be repaired after rupture, and that might account for the absence of eyes (see Lesson's *Pterosoma*, 'Voyage of the Coquille'). Such gelatinous forms are especially prone to rupture, and sufficient is known of the recuperative power of the Nemertean to render repair rather than permanent injury the rule. The proportionate size and firmness of the proboscidian chamber, with its glistening internal surface, are certainly remarkable, and, on the whole, my impression is that the form is incomplete posteriorly.”

All the fragments of *Pelagonemertes* that came into my hands were carefully treated with staining reagents, hardened, imbedded and sectionised. The sections were all transverse. Pl. VIII. fig. 3 represents one of the average sections with parts of all the important organs imbedded in the common gelatinous basis. No sufficient sections of the brain were available, nor were distinct traces found of a nephridial system. The integument was in most parts of the surface wholly deficient; in a few others its general correspondence in transverse section with what is typical for the Hoplonemertea could be verified.

Certain other striking particulars, also visible in this section, and on the whole only confirmatory of what we already knew by Moseley's and M'Intosh's observations, are (1) the absence of a dorsal median blood-vessel; (2) the ventral openings of the generative sacs; (3) the numerous transverse fibres, both contractile and nervous, running in different directions through the body-jelly. Further, it may be observed, even with a rather low power, that each of the ripe ova is surrounded by numerous small follicle cells (Pl. VIII. figs. 3, 11), and that the nucleolus is often only represented by very numerous small chromatin spheres.

By the aid of stronger powers the details also represented on Pl. VIII. by figs. 4-13, can be more fully studied, and of these mention will successively be made in