the chief difference being that the basement membrane upon which the whole integument rests, is not here, at least not in all specimens, so clearly defined, nor comparatively so structureless, as it is in *Carinina*, and as we shall again find it in the Hoplonemertea. Moreover, identification is somewhat obscured by the appearance of a second, homogeneous, very thin basement membrane, which has also a strong affinity for the staining reagent, and which we must be careful separately to distinguish, if we wish to establish an adequate comparison between the parts in the different genera. This second basement membrane (*B*, in Pl. VII. figs. 2, 3, 5, 6, 9; *b*, in Pl. XII. fig. 2; Pl. XIII. fig. 6) divides the integument into two strata—an external one, comprising the peripheral sense-cells and ciliated cells, the unicellular glands, and the layer of deeply-stained nuclei; and an internal one, containing the longer and more tortuous glands, the deepest integumentary tissue, and, moreover, at least two very thin layers of fibres.

If we count the thin basement membrane alluded to for one layer, this makes three strata externally and four internally to it—eight altogether.

The different aspects of these strata may be gathered from the figures on Pl. VII. Fig. 6 shows the three layers outside the membrane *B*, and though the histological elements were not isolated, it was very obvious that large unicellular glands were here pouring their secretion to the exterior. The very outermost layer was here, as in all Nemertea, formed of strictly radially arranged cells, with far less distinct nuclei, whereas between and just below the secreting cells strongly stained nuclei give to this part of the integument the peculiar radially striped appearance which it has when viewed with lower powers (figs. 2, 3, 5, 9). This same peculiarity is only less visible in fig. 6 because of the very copious discharge of secretion in the gland-cells. From figs. 5 and 9 it is sufficiently obvious, however, that these glands are not the only ones, but that in the layer indicated by *Gi* the darkly-stained secretion of more deeply lying, larger, and more irregularly-shaped glands is unmistakable, and is also seen to communicate with the exterior by fine tortuous tubes piercing the superposed membranous and cellular strata, about ten of these ducts being specially indicated in fig. 5. Their direct passage into the respective glands is not always visible in one section, the course of the tubes being tortuous. The same glands, though also present in the sections shown in figs. 2 and 3, are there less marked, because the secretion has not yet so distinctly accumulated. Here, too, the reference letters *Gi*, point to the stratum in which we find them imbedded. A second constituent of this stratum is seen in cells similar to the secreting cells in the unripe stage (figs. 2, 3), but having afterwards a very distinctly vacuolated character, and then forming the surrounding and sustaining tissue for the functional glands. They might, then, best be designated as vesicular connective tissue ("blasenförmiges Bindegewebe"), with hardly any intercellular substance. The comparative thickness to which this part of the integument may attain is best understood from Pl. VII. figs. 5, 9, *Gi*. That there is a sharp line of demarcation between it and the gelatinous or