around the nuclei contained in this homogeneous intercellular substance, show a very delicate granulation, and it is often very difficult to decide whether a given one belongs to the nervous network, or whether it is a more indifferent cell, appertaining to the gelatinous ground-substance. In the former case the connection with the nerve-plexus is of great advantage in the decision, and but for this such a decision would often be wholly impossible. The fibres generally offer less difficulty, the delicate nervous fibres being sufficiently distinct from the elastic or contractile fibrils. The intermuscular homogeneous tissue of *Eupolia*, and its inclusions in the region somewhat behind the head, are figured in Pl. VII. figs. 4, 5. In its deepest part, immediately surrounding the circular muscular layer, we find the nervous stratum, that will be more fully discussed further on. We must mention this, because in certain of the Schizonemertea (Pl. XII. fig. 10), to whose basement membrane and intermuscular tissue we have now to direct our attention, glandular structures belonging to the integument reach as far down as this layer; a factor which we have to keep well in view when discussing the tissues to which this paragraph is devoted. This is all the more necessary, because in that case the other deeper cellular components of the integument are reduced in number, whereas the outer longitudinal muscular layer having become more compact and dense, the intervening region between these two, the region *Bct* of Pl. VII., has vanished from view. The secondary basement membrane (*B*) is then the sole representative of such a structure, and might easily, but as I hope I have demonstrated, injudiciously, be looked upon as homologous with the basement membrane of *Carinina*, *Carinella*, &c. (*cf.* Pl. XI.).

An arrangement of the basement membrane, wholly comparable to what we have described in *Eupolia*, is found in such Schizonemertea as *Cerebratulus corrugatus* (Pl. XIII. fig. 6, *B*,*b*). In most of the others the strongly developed and massive outer longitudinal muscular coat so much encroaches upon the deeper layers of the integument in the way just noticed, that it is no longer possible clearly to distinguish between the two integumentary muscular strata (*Ilcm*) and the subjacent one constituting the body-wall (γ). The extreme representatives of this development are figured on Pl. X. fig. 7, and Pl. XII. fig. 10.

We now resume our examination of the gelatinous tissue, which we have as yet only examined as subintegumentary basement membrane (*Carinina* and Hoplonemertea), or also as intermuscular substance (*Eupolia* and Schizonemertea) in its further participation in the muscular investment. In the circular and inner longitudinal layers gelatinous intermuscular tissue is unmistakably present, and its presence is revealed both by the nuclei and by its peculiar homogeneous appearance, but at the same time, owing to the far greater compactness of these last named muscular layers, when compared with the outer longitudinal one of *Eupolia*, the position of the connective jelly is much more subordinate, and its presence less easily demonstrable. Still it may be observed in the larger