to consist of a central cavity surrounded by two coats. The central space is partially occupied by a faintly granular, transparent substance of firm consistence, probably of the nature of vitreous. The outer of the two coats is the above-mentioned prolongation of the cuticle; the inner covering represents the retina and its central connections.

1. *The Outer Coat.*—At the periphery of the globe, behind or at the outer side, this coat may be seen to be formed of two distinct layers. From without inwards are found:—

(*a*) A thin transparent chitinous layer.
(*b*) A fine connective tissue stroma with distinctly nucleated epithelial-like cells (see Pl. XXXIIIA. fig. 2).

It is doubtful whether or not this layer is again followed by a thin, clear, internal covering; in one section this seems to be the case.[1]

Tracing this outer coat forwards over the eyeball, we find that it becomes very thin, homogeneous, and transparent opposite the middle of the globe. It appears to consist here merely of the chitinous layer somewhat thickened, and lined internally by a delicate endothelium[2] (Pl. XXXIIIA. figs. 1, *b*, and 3). Still more anteriorly this coat again loses its transparent, homogeneous appearance, and in the middle line it meets the corresponding coat of the opposite eye at an acute angle and becomes blended with it, forming here a thick layer with numerous spaces seen on section (Pl. XXXIIIA. figs. 1 and 4, *a*). Some of these spaces, of well-defined elongated oval form, are evidently sections of blood-vessels. This outer coat must be considered as strictly analogous with the corneo-sclerotic of higher animals, the thin, transparent, central part representing the cornea.

2. *The Inner Coat.*—The retina and its central connections.

What first attracts the attention in this situation is a layer of reddish-brown pigment. Tracing it from before backwards, we find it first lining the inner surface of the anterior part of the sclerotic, beginning just outside the corneal margin. It is continued backwards in this relation until it meets with a structure projecting from the fundus well into the interior of the globe, over the anterior or inner surface of which it is reflected. At intervals this pigment is disposed in little heaps, but there is no definite arrangement of the aggregations as we find in the Alciopidæ. It consists of minute round granules, each about 0·5 mm. in diameter.

The mound-like structure just referred to as projecting from the fundus, contains numerous ganglion cells, fine molecular material, and exquisitely delicate fibrils. From its position we should accept it as the nervous part of the retina, but it really represents

[1] Compare R. Greeff, Untersuchungen über die Alciopiden, *Nova Acta Acad. Cæs. Leop.*, Bd. xxxix., No. 2, p. 96.

[2] This endothelium is probably of the same nature as that described by Greeff in this position in the Alciopidæ, and traced by him backwards to the periphery of the cerebral ganglion, with the covering of which it is directly continuous, *op. cit.*, p. 97.