

PLATE XXXIV_A.

- Fig. 1. Vertical section through entire retina. *a*, rod-layer; *b*, pigment; *c*, columnar cells. At *d* the pigment-layer is almost quite devoid of pigment, and is seen to be defined by a sharp border both internally and externally: one small nucleus is visible in this area. At *e* is a hyaline-looking tapering process resting by its base on the pigment-layer, and extending outward for some distance between the columnar cells.
- Fig. 2. *a*, Transverse section of rods showing arrangement of cortex in two crescents nearly enclosing a central area; they apparently just touch at one place and leave a slight gap at the opposite side. *b*, transverse section of other rods. The cortex is in the form of doubly contoured circles enclosing a large central space.
- Fig. 3. Vertical section through retina. Most of the rods have become detached. Several clear, tapering processes (like *c*, fig. 1) are visible: one of these extends quite half way through the columnar layer.
- Fig. 4. Vertical oblique section through pigment-bodies (? cells). One or two fragments of rods are attached. Clear spaces in the pigment correspond to sections of processes from rods or columns. Clear tapering processes extend outward from the pigment-bodies.
- Fig. 5. Two detached rods viewed under a high power. Pigment-granules adhere to their inner ends. The rods present an involuted appearance, suggesting their having been originally formed by the folding in of a thin, vertical, plate-like structure.
- Fig. 6. Vertical section through rod and pigment-layers at centre of fundus. The rods are long, narrow, and cylindrical, and exhibit the appearance described by Greeff as transverse striation. The pigment is mapped out into areas suggesting a cellular structure, each corresponding to the insertion of one, or at most two rods. Pigment-granules are traceable for some little distance along the outer ends of the rods.
- Fig. 7. Transverse section of the body-wall in the anterior third of *Syllis gigantea*, × 20.
- Fig. 8. Portion of *Syllis ramosa*, from the Arafura Sea, showing a head, × 12.
- Fig. 9. Anterior end of a female bud of the same species with long simple bristle-tufts, × 24.
- Fig. 10. Anterior region of another female bud of the same species, from Ki, × 24.
- Fig. 11. Twenty-first foot of *Exogone heterosetosa*, × 430.
- Fig. 12. Head and anterior region of a male bud of *Syllis ramosa*, from Prof. Moseley's specimen, Enlarged.
- Fig. 13. Posterior extremity of the same, Enlarged.