

of 0.2 and a height of 0.06 mm., appearing perfectly structureless, and being formed of a solid *unstainable yellow* substance, which may perhaps be a secretion poured into these spaces.

The fibrous tissue which separates the lenticular yellow bodies from each other consists chiefly of slender spindle-shaped elements, with oval, highly stainable nuclei. There seems to exist a very fine cuticular membrane surrounding each of the lenticular bodies.

The volume of the fibrous tissue is about as great as that of the yellow substance in the lenticular bodies.

(7) *The meandriform gland-tubes.*

At the sides of the slime-canal (Pl. LXXIII. fig. 55, *b*) large and conspicuous highly stainable glands (Pl. LXXIII. fig. 59), which consist of meandriform tubes of circular transverse section and uniform width, are met with. These gland-tubes, which do not appear to open into the slime-canal, are completely filled with round cells each of which has a very distinct cell-wall, a small nucleus, and transparent hyaline contents. They are very similar to the short oval or cylindrical elements, with circular transverse section, which are found in the slime-canal (Pl. LXXIII. fig. 58).

*c. Innervation.*

I have mentioned above that I look upon the granular cells in the slime-canal as ganglion-cells. They are connected by a fine plexus, which extends up along the scales and supplies the fibrous tissue between the lenticular bodies with nerves. A large bundle of nerve-fibres, similar to that observed in other cases, is found in these organs in *Halosaurus*, in the canal leading from the chamber through the scale into the phosphorescent organ.

*d. Function.*

According to F. E. Schulze,<sup>1</sup> the slime-canal is to be regarded as a sense-organ, adapted to perceive vibrations of the water with wave lengths too great to be perceptible by the ear. In other words the slime-canal is a supplement to the ear, and any further development of it should, one would think, be organs of sense of a similar kind. In the abysses of the sea, where light is scanty, this organ would be particularly valuable and so we might assume that here we have a case before us, where the slime-canal sense-organ has been further developed and complicated.

The peculiar whitish colour of the organ and the light reflecting membrane which clothes the chambers might, on the other hand, lead one to assume that these organs really

<sup>1</sup> *Loc. cit.*