

of a prodigious number of vessels, wherein a liquor is seen to circulate. The largest of these unite together, much in the same manner as the optic nerves do in man."\*

The external envelope of the naked Hydroïda is a thick firm fleshy or coriaceous skin consisting of a corium and epidermis,—the former layer constituting the chief organ of support, and giving to the animal its peculiar form. "A circular horizontal portion forms the base or foot; a cylindrical vertical portion constitutes the sides, and is inflected at the superior border, so as to form a thick rounded lip. The corium is afterwards prolonged over the tentacula, giving investment and form to these organs, and is then extended horizontally to form the roof, near the centre of which it again becomes folded upon itself, forming an internal lip or mouth, at which part it is continuous with the digestive sac." †—"The epidermis forms a thin layer of unorganized matter spread over the whole extent of the corium, and may be traced into the stomach. The external surface of the epidermis is dense and membranous; internally, when examined by the lens, it appears as a pulpy substance. Intimately intermixed with it, in irregular patches, and not constituting a distinct or separate layer, is a pigment varying in colour in different parts of the same animal, and in different individuals. This colouring matter is extensively distributed over the base, sides, tentacula, and roof, but I have never observed any trace of it in the stomach." ‡ The surface is either smooth or studded over with glandular warts, which, having an adhesive quality, enable the creatures the more completely to conceal themselves by including the body with an extraneous coat formed of the sand, gravel, and broken shells which lie around their peculiar localities. This is exchanged in the madrecolous tribes for the more perfect defence which a hard coral affords, into which the soft parts are withdrawn at will. "This coral is calcareous, and the cells which are inhabited by the animals are furnished with more or less distinct longitudinal lamellæ, placed in a radiating position round the central axis, so as to give the cavity a star-like appearance." § Its structure is in fact a model cast in lime of what may be called the skeleton of the Actiniæ,—the parts on

\* Phil. Trans. abridg. xiii. 639.

† Teale in lib. supra cit. 93.

‡ Teale in loc. 95.

§ Gray in Synop. of British Museum, 70.