

internally. The proboscis is more compressed (laterally) than in the previous forms, and circular fibres are not apparent. Externally is a firm layer of chitinous hyaline tissue. The inner border of the radiate fibres is generally more translucent than the rest, apparently from the action of the light on their curvature. The hypoderm is comparatively thin and fibro-granular, and between it and the radiate coat is a basement-layer. The cuticle is well marked. A ridge occurs internally at each pole, the fibres of the radiate coat opposite the larger or inferior ridge being coarsely arranged. Two nerve-trunks appear on each side, about a third removed from the poles. They lie, as usual, at the inner border of the hypoderm, *i.e.*, next the radiate coat or its basement-tissue.

*Thalenessa oculata*, n. sp. (Pl. XXI. figs. 1, 2; Pl. XXIII. fig. 12; Pl. XXV. fig. 3; Pl. XIII.A. figs. 11, 12).

*Habitat*.—One example was dredged at Station 162 (off East Moncœur Island, Bass Strait), April 2, 1874; lat. 39° 10' S., long. 146° 37' E.; depth, 38 fathoms; surface temperature, 63°·2; sea-bottom, sand and shells.

A second (imperfect) specimen occurred in the dredge at Station 172 (off Nukalofa, Tongatabu), July 22, 1874; lat. 20° 58' S., long. 175° 9' E.; depth, 18 fathoms; surface temperature, 75°·0; sea-bottom, coral mud.

The species is of considerable size, the former fragmentary example measuring about 55 mm. in length, and with the bristles 6·5 mm. in diameter.

The head (Pl. XXI. fig. 2) is distinguished by the very large size of the eyes, which are close together on each side, though the pairs are widely separated transversely. The anterior pair are the larger, and show a considerable pale area or "lens." In the smaller example from Tongatabu (Pl. XXI. fig. 1) the large anterior eyes present a peculiar appearance from the obliquity of the pigmentary semicircle (which is pointed in front) and the great size of the external pale region. The anterior margin of the head has a pair of short antennæ with somewhat blunt points, and behind them a median tentacle of nearly the same length, and having a similar blunt tip. Each of these processes are narrowed at the articulation near the base. This type of tentaculiferous head therefore differs from that seen in *Sthenelais boa*, with its great median tentacle and small antennæ. The proboscis in the larger example is extruded, and forms a smooth rounded bulla anteriorly.

The scales, which are comparatively thin, do not cover the dorsum anteriorly, and are considerably smaller than those usually seen in this region in the group. As indicated in the figure (Pl. XXI. fig. 1) of the example from Tongatabu, the scales are prettily dappled with brown. The first scale is small, rounded, simply granular in