1. Nectria ocellifera (Lamarck), Gray (Pl. LV. figs. 1-7).

Asterias ocellifera, Lamarck, 1816, Hist. nat. anim. s. vart., t. ii. p. 553.

Nectria oculifera, Gray, 1840, Ann. and Mag. Nat. Hist., vol. vi. p. 287.

Goniodiscus ocelliferus, Müller and Troschel, 1842, System der Asteriden, p. 60.

Chalaster munitus, Mobius, 1859, Neue Seestorne des Hamburger und Kieler Museums, p. 3, Taf. i. figs. 1 and 2 (Abhandl. a. d. Gebiete Naturw. hrsg. v. d. naturwiss. Verein, Hamburg, Bd. iv. Abth. 2, 1860).

Nectria ocellifera, Gray, 1866, Synop. Spec. Starf. Brit. Mus., p. 15.

Locality.—Station 162. Off East Moncœur Island, Bass Strait. April 2, 1874. Lat. 39° 10′ 30″ S., long. 146° 37′ 0″ E. Depth 38 to 40 fathoms. Sand and shells. Surface temperature 63° 2 Fahr.

Several examples of this starfish were collected at the above station, and are chiefly interesting on account of showing different stages of growth. Only one example is large and mature; and this specimen agrees in the form of the ray and the character of the paxillæ with the description given by Perrier¹ of his Nectria ocellata, whilst the adambulacral armature is that of Nectria ocellifera. Nectria ocellata is the form which Gray called Nectria ocellifera and referred to Lamarck's species Asterias occllifera; Perrier, however, considers that Gray's form is distinct from Lamarck's. The small examples, on the other hand, have the short rays of Nectria ocellifera, but have the adambulacral armature of Nectria ocellata. Under these circumstances I have refrained from referring the adult specimen to Perrier's Nectria ocellata, and I feel in doubt as to whether that species is really distinct from Nectria ocellifera, Lamarck, sp., or is only a growth-stage.

The largest of the Challenger examples has elongate, conically cylindrical, tapering rays, the major radius being about three and a half times greater than the minor radius, R=64 mm, r=18 mm. In the armature of the adambulacral plates there are two rows of elongate papilliform granules, the furrow series having two or occasionally three, and the outer row two granules. The large prominent paxillæ of the abactinal surface taper slightly from the base to the tabulum and are not hour-glass-shaped; the granules in the series that surrounds the margin of the tabulum are distinctly smaller than those on the centre of the tabulum, but they do not in any sense become modified into flattened scales as described by Perrier in Nectria ocellifera, Lamarck. The madreporiform body is distinctly visible, and the paxillæ in its neighbourhood are not very high. It will thus be seen that in the length of the ray and in the character of the paxillæ this example conforms to the description of Nectria ocellata, whilst in the character of the adambulacral armature it resembles that of Nectria ocellifera.

I may mention that I have seen a specimen in the Berlin Museum which also seemed to combine the characters of the two forms. These circumstances are not without significance in connection with what follows on the features of the young stages of the form collected by the Challenger.

¹ Révis. Stell. Mus., p. 188 (Archives de Zool. expér., 1876, t. v. p. 4).