

distal half, 0·10 mm. in diameter. 6. *Microstrongyle*, fusiform, centrotylote, 0·047 by 0·006 mm.

*Colour*.—White externally, pale yellow within. Size, 76 mm. long by 38 mm. wide.

*Habitat*.—Freemantle, South Australia.

*Erylus cylindrigerus*, Ridley.

*Erylus cylindrigerus*, Ridley, Spong. "Alert," p. 626, pl. liii. fig. 17, pl. liv. fig. 2, 1884.

*Sponge*.—Massive, rising from a spreading base into a cylindrical or finger-like column, 30 mm. high by 12 mm. in diameter, bearing a single oscule at the apex. Pores the simple openings of incurrent chones, 0·2 mm. in diameter. Cortex, 0·1 mm. in thickness, composed of several layers of sterrasters, with a felt of microxeas beneath the epithelium. Microxeas and asters dispersed through the choanosome.

*Spicules*.—I. Megascleres. 1. *Strongyle*, fusiform, 0·7 by 0·032 mm. 2. *Orthotriæne*, rhabdome 0·29 by 0·0194 mm., cladi 0·232 mm. in length.

II. Microscleres. 3. *Sterraster*, lozenge-shaped, actines bearing minute spines, about 0·012 mm. apart; length 0·21 to 0·28 mm., breadth 0·1 to 0·14 mm.; thickness 0·032 mm. 4. *Oxyaster*, with conical minutely spined actines, 0·0237 mm. long, passing into 5. *Spheraster*, with more numerous shorter actines, 0·024 mm. in diameter. 6. *Microxea*, fusiform, centrotylote or not, smooth, 0·06 by 0·0032 mm.

*Colour*.—Dark-brown, almost black, in spirit specimens; produced by pigment-cells in the cortex.

*Habitat*.—Providence Reef, Mascarene Islands; depth, 24 fathoms; bottom, sand and dead coral.

*Remarks*.—I have adopted most of Ridley's measurements of the spicules of this sponge. The orthotriæne which Ridley thought was absent is readily found in thick slices, but it is not very common. The young forms of the sterraster present themselves as excessively thin smooth discs, composed of trichital actines, radiating in a single plane. The hilum in the adult sterraster is represented by an oval, smooth, central space, devoid of spines.

THE FOLLOWING THREE SPECIES OF ERYLUS ARE INSUFFICIENTLY CHARACTERISED :—

*Erylus mastoideus* (O. Schmidt).

*Stelletta mastoideus*, O. Schmidt, Spong. Meerb. v. Mexico, p. 70, pl. x. fig. 1, 1880.

*Sponge*.—Massive, lobed, bearing a single oscule on each lobe; surface roughened by the points of protruding spicules. Oscule surrounded by a circular, contractile, membranous margin. Cortex consisting externally of a felt of large fusiform spicules, which likewise form the spicular fibres of the interior. Canal walls lined with microstrongyles.