

II. Microsclere. 5. *Sigmaspire*, 0·0625 mm. long. The sigmaspires are spined on the outer side and at their extremities; they are also three to four times as large as those of most Tetillidæ.

*Colour*.—Purplish-black.

*Habitat*.—Unknown.

*Remarks*.—The cortex of this remarkable sponge is that of a genuine *Craniella*, it measures about 1·2 mm. in total thickness, the outer layers, with the usual characters of *Craniella*, being about 0·9 mm., and the inner layer with widely extending subdermal cavities about 0·3 mm. across. Carter represents the natural surface of a half of the sponge, which in the entire state was approximately spherical; apparently it had been bisected, one half sent to Carter to describe, and the other retained in the British Museum collection; the two halves are now placed together with a common label.

The gigantic spined sigmaspires are quite sufficient to characterise the species.

*Craniella cranium*, auctt.

*Alcyonium cranium*, Müll., Zool. Dan., pl. 85, fig. 1, 1789.

*Tethya cranium*, Lmk., Mém. d. Mus., vol. i. p. 71, 1815.

*Alcyonium cranium*, Lmx., Hist. d. Polyces, p. 347, 1816.

*Spongia pilosa*, Mont., Mem. Wern. Soc., vol. ii. p. 119, pl. xiii. figs. 1–3, 1818.

*Tethya cranium*, Flem., Brit. Animals, p. 519, 1828.

„ „ Blainv., Mém. d'Act., p. 544, 1834.

*Tethea cranium*, Johnst., Brit. Spong., p. 83, pl. i. figs. 1–8, 1842.

„ „ Bwk., Mon. Brit. Spong., vol. i. p. 182, pl. xxxi. fig. 362, 1864.

„ „ Bwk., Mon. Brit. Spong., vol. ii. p. 83, 1866.

*Tethya cranium*, O. Sch., Spong. Adriat. Meeres, Suppl. ii., pl. i. fig. 14, 1866.

„ „ Gray, Proc. Zool. Soc. Lond., p. 543, 1867.

„ „ Carter, Ann. and Mag. Nat. Hist., vol. viii. p. 104, 1870.

„ „ Carter, *Op. cit.*, vol. ix. p. 419, pl. xxii. fig. 9, 1872.

„ *unca*, Bwk., Proc. Zool. Soc. Lond., p. 118, pl. v., 1872.

„ *cranium*, Bwk., Mon. Brit. Spong., vol. iii. p. 315, pls. xiv., lxxxix., 1874.

*Tetilla cranium*, Müll., and *Craniella cranium*, Soll., Ann. and Mag. Nat. Hist., vol. ix. p. 149, pl. vii., and p. 327, 1882.

*Tethya cranium*, var. *typica*, Norman, Bwk., Mon. Brit. Spong., vol. iv. p. 39, 1882.

*Tetilla cranium*, Hansen, Norske Nord. Exped., Spongiadæ, p. 18, pl. v. figs. 3, 4; pl. vii. fig. 16, 1885.

*Craniella mülleri*, Vosmaer, Sponges of the "Willem Barents" Expedition, p. 6, pl. ii. figs. 9–15; pl. v. figs. 1, 2, 1886.

*Non Tetilla cranium*, O. Sch., Spong. Atlant. Gebiet., p. 63, 1870.

*Spicules*.—I. Megascleres. 1. *Somal oxea*, anisoactinate, distal actine thicker than the proximal, which is attenuated to an almost filiform termination, 2·1 by 0·05 mm. (Bwk.), 2·18 by 0·027 mm. (Soll. N.), 4·28 by 0·05 mm. (Soll. C.).

2. *Cortical oxea*, 0·83 by 0·038 (Bwk.), 0·9 by 0·032 mm. (Soll. C.).