

have been separated on that account. These rooting processes are divided by vibices, and in each division thus formed there is usually a small triangular avicularium, and also a few large pores. In section this process is seen to be composed of large chambers, the avicularian muscles only occupying a small part. The structure of the radical process of *Retepora columnifera* is identical. I have not seen *Retepora imperati* from the Mediterranean, and if it had been common at Naples should have expected it to come into my hands.

*Retepora gigantea*, Busk (Pl. III. fig. 6).

*Retepora gigantea*, Busk, Zool. Chall. Exp., part xxx. p. 114, pl. xxvi. fig. 7.

The dorsal surface has numerous small semicircular avicularia, and there are also similar ones on the front.

*Retepora lata*, Busk (Pl. III. figs. 9, 40).

*Retepora lata*, Busk, Zool. Chall. Exp., part xxx. p. 115, pl. xxvii. fig. 1.

I have for some years possessed two large specimens of this from Algoa Bay, but could not decipher the structure, as calcareous growth seems to have taken place over the anterior surface, obliterating the characters. The opercula and mandibles at once prove it to be *Retepora lata*; besides which, the extremely small fenestræ are the same, and I have also been able to see an ovicell with the vertical fissure. Besides the anterior triangular avicularia, there are small oval ones; the dorsal surface is areolated, and sometimes throws out calcareous radical processes. Sections show that in the thick dorsal walls there are the numerous empty spaces mentioned (p. 21) as occurring commonly in *Retepora*.

*Retepora porcellana*, MacGillivray.

*Retepora porcellana*, MacGillivray, Trans. Roy. Soc. Vict., vol. ix., 1869, p. 140; *op. cit.*, vol. xix. p. 289, pl. ii. fig. 9; Zool. of Vict., dec. x. p. 15; pl. 94, fig. 8; pl. 95, figs. 1-6.

*Retepora robusta*, Hincks, Ann. and Mag. Nat. Hist., ser. 5, vol. i. p. 359, pl. xviii. figs. 9, 10.

*Retepora crassa*, Busk, Zool. Chall. Exp., part xxx. p. 115, pl. xxvi. fig. 10; pl. xxvii. fig. 3.

It would seem that the avicularia may be either oval or round, as in the Challenger specimens examined, Stations 161 and 162, 33 and 38 fathoms, they are oval; while in another specimen from Victoria they are usually round, and this is also the case in a fragment from off Green Point, New South Wales. There are usually two large pores or pits on the front of the zoëcium, near the proximal end.

*Habitat.*—Victoria; New South Wales.