

Sponge branched, with free cylindrical branches of equal thickness, each provided at the distal end with an osculum. Pseudo-skeleton composed of *Globigerina* ooze.

*Ammosolenia rhizammina* forms dendritic or branched tufts, composed of a variable number of cylindrical, not anastomosing, branches. The small trees have a diameter of 8 to 12 mm., and are either erect or creeping on the bottom of the sea. The diameter of the tubules is between 0·8 and 1·2 mm., the length between 10 and 16 mm. Usually they are of nearly equal thickness, and open at the distal end by a circular mouth. The thin wall of the tubes seems to be solid, and to consist only of *Globigerina* shells cemented together by a scanty maltha. But after removal of the calcareous matter by hydrochloric acid, and staining the residuum by carmine, there remains a thin membrane pierced by numerous small pores. These are disposed in the same manner as in *Ammolynthus haliphysema* (Pl. VIII. fig. 2) and in *Ammoconia auloplegma* (fig. 4). Between the pores are visible here and there small cellular flakes, composed of minute granular cells, perhaps the remnants of the flagello-epithelium. A careful examination of living and well-preserved specimens is, however, required to confirm the sponge-nature of this as well as of the other *Ammoconidæ* with certainty.

### Genus 3. *Ammoconia*,<sup>1</sup> n. gen.

*Definition*.—*Ammoconidæ* of reticular shape, forming a network of anastomosing porous tubules, without oscula.

The genus *Ammoconia* among the Keratosa represents the same characteristic form, which is very common among the calcareous *Asconidæ*, described in my Monograph (1872) as *Auloplegma*. The sponge consists of a network, composed of numerous thin-walled (usually cylindrical) anastomosing tubes. The thin walls are pierced by numerous small round pores, but there is no larger opening or osculum. Whilst the thin outer wall of the tubes in *Auloplegma* is supported by calcareous spicules formed by the sponge itself, in *Ammoconia* it is built up of xenophya, or foreign bodies taken from the sea-bottom. There are two similar species of this genus found on the sea-bottom; in the first (*Ammoconia auloplegma*) the pseudo-skeleton is formed by calcareous *Globigerina* ooze (Pl. VIII. fig. 4); in the second (*Ammoconia sagenella*) it is sandy and siliceous, composed of sponge spicules and the volcanic debris of the red clay. Very similar to this latter, or even identical with it, may be that form which Brady has figured as *Sagenella frondescens*.<sup>2</sup>

<sup>1</sup> *Ammoconia* = Sandy cement, ἀμμονοκονία.

<sup>2</sup> Zool. Chall. Exp., pt. xxii. p. 278, pl. xxviii. figs. 14, 15.