

radiating lamellæ fine, granulose, perforated, strongly marked about the depressed centre, their costal extensions becoming very fine towards the margin, where those of adjacent stars are often continuous; buds marginal; vertical section shewing a sub-uniform small vesicular structure, arranged in transverse undulations corresponding to the form of the cells, the curve directed downwards under the centres and upwards between them; no defining walls to the centre or between the stars; centre marked by a few vertical striæ resulting from the twisted edges of the vertical lamellæ.

This genus differs from *Sarcinula* in wanting the distinct-walled, septate, tubular centre; from the compound *Strephodes* it differs in the absence of solid boundary walls to the cells in both sections; and from *Acerularia* by its lateral buds, and want of solid boundaries to the centre and to the stars in the sections.

ARACHNOPHYLLUM TYPUS (*M<sup>c</sup>Coy*). Pl. 1. B. fig. 27.

*Syn. and Ref.*—*M<sup>c</sup>Coy*, Ann. Nat. Hist. 2nd Series, Vol. VI. p. 278.

*Acerularia Baltica* (Schw.) Lonsd. pars. Sil. Syst. t. 16. f. 8 b. (not of Schweigger).

*Sp. Ch.*—Corallum forming thick irregular enveloping masses; upper surface undulated, covered with large shallow polygonal stars, defined by very obtusely angular ridges; the centres averaging seven or eight lines apart, circular, depressed, rather more than one-third the diameter of the star, radiated with about thirty-three strong, granulose, sub-alternate, lamellæ, half of which reach the flattened centre where they are irregularly united and slightly twisted; on the outer inclined area of each star each of the lamellæ becomes much thinner and more faintly marked, branching di- or tri-chotomously once or twice, and often waving in a variable manner before reaching the boundary, over which they frequently pass into the adjoining stars; *vertical section* shewing a few delicate vertical striæ under the centres of the stars (edges of the twisted vertical lamellæ), and a nearly uniform small vesicular tissue, the cells of irregularly unequal size, passing from star to star, with a few irregular dense bands nearly coinciding in curvature with the form of the cells: average of larger cells two to three in one line.

That this is *one* of the fossils figured by Mr Lonsdale in the "Silurian System," as the *Acerularia Baltica* of Schweigger, I have little doubt, but neither the particular figure which I refer to above, nor the others which that writer has given under the same name in that work, have any specific relation to the true *Acerularia Baltica* of Schweigger, who avows that name to be only a synonym of the *A. ananas* (Linn. Sp.) referring to the original figure, &c. in the *Amninitates Academicæ* of Linné, representing a coral which has a distinct-walled tubular centre, from which the groups of young are developed, solid walls between the cells, &c. (See *Acerularia ananas*). The lateral disk buds are often seen in this curious coral.

*Position and Locality.*—Wenlock limestone, near Aymestry, Herefordshire.

*Explanation of Figures.*—Plate 1. B. fig. 27. Natural size from Aymestry, portion of large mass.—Fig. 27 a. Portion of ditto magnified three diameters, shewing the form of the cup, with the strong lamellæ lining the depressed centre, becoming abruptly thinner, more numerous by branching, and flexuous as they pass irregularly into those of the adjoining stars; the vertical section in lower part shewing the uniform vesicular tissue of the whole mass, without divisional walls to the cells; the few vertical lines under the centre are divided edges of some of the lamellæ.

6th Family. TURBINOLIDÆ.

Corallum usually simple, never fissiparous, sometimes increasing by lateral buds; radiating lamellæ strong, simple, usually granulated on the sides, no connecting vesicular plates or processes; epitheca thin, usually imperforate, surface usually marked with lamellar sulci; no coenenchyme in the compound forms.

Subfamilies:—1, *Cyathinæ*; 2, *Turbinolinæ*; 3, *Eupsammिनæ*.