Family I. HAIMEIDÆ.

Haimeidæ = Haimeinæ, Porc. Wright, Quart. Journ. Micr. Sci., vol. v. pp. 213-217, 1865. Haimeidæ, v. Koch, Morphol. Jahrb., Bd. iv. p. 474. Monorenidæ, Haeckel, Arab. Korallen., p. 8, 1876.

In this family the polyps remain single, not uniting to form colonies; the polyp walls with or without spicules.

1. Haimea, Milne-Edwards, Hist. Nat. des Coralliaires, t. i. p. 104; Koren and Danielssen, Nye Alcyonider, p. 15, Tab. 8.

The polyps are cylindrical, minute, retractile. There is no trace of stolons or of a spreading base. Spicules very thorny spindles, clubs and crosses. Nematocysts ovoid.

2. Hartea, Perceval Wright, Quart. Journ. Micr. Sci., vol. v. pp. 213-217, 1865.

Polyps elongated, retractile. Spicules spiny spindles.

3. Monoxenia, Haeckel, Arab. Korallen., p. 8.

The polyps without spicules.

Family II. CORNULARIIDÆ.

Cornulariadæ, Dana, Zoophytes, p. 627; Kölliker, Icones histiologicæ, pt. ii. p. 131. Cornulariaæ and Telestiaæ, Milne-Edwards, Hist. Nat. des Coralliaires, t. i. p. 104. Cornularidæ, Verrill, Proc. Essex Inst., vol. iv. p. 148. Cornulariaæ, Klunzinger, Korall. des rothen Meeres, i. p. 42. Cornularida, v. Koch. Skelet d. Alcyonarien, Morph. Jahrb., Bd. iv. p. 474.

According to Klunzinger's diagnosis, the polyps are not united in bundles at the base to a stem or foot, but have cuticle-like or stolon-like expansions, or are branched and bear lateral buds.

The Cornulariidæ are a family of great interest, forming as it were a starting-point from which several families, or even orders, appear to diverge. *Rhizoxenia* may be regarded as one of the simplest colonial forms, allied to the simple polyp forms met with in Haimeidæ. From this *Anthelia* appears to diverge in one direction, where the polyps do not yet exhibit a stiffened calycine portion distinct from a retractile oral region, but have their bases surrounded by a thickened cœnenchyma penetrated by large nutritive canals, and by a network of sap-canals. This development of a basal cœnenchymatous membrane leads on to the conditions exhibited by the Xeniidæ.