

extremities and give support to the dermal membrane. The dermal membrane is strengthened by a very irregular "dermal reticulation" composed of loose spiculo-fibre.

Spicules.—*Megasclera* (Pl. XL. fig. 9); (1) very long, slender, slightly curved, fusiform oxea; sharply and rather suddenly pointed; size variable, up to about 1·7 by 0·02 mm. (2) Large, usually slightly curved styli, with evenly rounded base; shorter and stouter than the oxea; size variable, up to about 1·47 by 0·028 mm. The styli are plentiful, but not so common as the oxea; occasionally also a stout strongylote spicule is seen, evenly rounded off at each end; these are, at any rate commonly, shorter than either oxea or styli. The full-grown spicule appears to gain in thickness what it loses in length, and this is probably the case in many species, as held by Carter.¹

Unfortunately all the specimens of this sponge, which seems to be abundant at Station 320, are much frayed out and injured. It is an interesting species which might easily be mistaken for a Renierine, but the variety in form of the spicules and the arrangement of the skeleton show its Axinellid relationships. It is at once distinguished both from *Ciocalypta penicillus*, Bowerbank, and *Ciocalypta hyaloderma*, nobis, by its external form and also by its spiculation. The manner in which the dermal membrane is supported at a distance from the body of the sponge, on the outspread ends of columns of spiculo-fibre, necessitates the reference of this species to the genus *Ciocalypta*.

Locality.—Station 320, February 14, 1876; lat. 37° 17' S., long. 53° 52' W.; off the mouth of the Rio de la Plata; bottom, green sand; bottom temperature, 37°·2. Five or six specimens.

Genus *Acanthella*, Schmidt (Pl. XXXII.).

1862. *Acanthella*, Schmidt, Spongiën d. Adriat. Meeres, p. 64.

1870. (?) *Pandaros*, Duchassaing de Fonbressin and Michelotti, Spong. Mer Caraïbe, p. 88.

Axinellidæ of ramose, bushy, or frondose external form; of cartilaginous consistency, and with glabrous surface beset with ridges and spines; there is no distinct horny fibre; smooth linear megasclera (*e.g.*, styli, strongyla and unequal-ended oxea) are present. No microsclera.

Schmidt's diagnosis runs "Halichondriæ ramosæ et fruticosæ, tanquam spinis obsitæ. Cutis lævis, porosissima, quæ in ramis crassioribus sola pigmento infecta est et veræ pellis instar a parenchymate distinguitur. Parenchyma spisse impletum spiculis simplicibus longioribus, substantia firmiori non inclusis."

The genus appears to us to be a good one, although queried by Vosmaer,² and sufficiently distinct from other genera of Axinellidæ to deserve separation; the original type is *Acanthella acuta*, Schmidt.

The cartilaginous consistency is a marked characteristic of the genus, and is evidently due to the peculiar character of the mesoderm.

¹ *Ann. and Mag. Nat. Hist.*, ser. 5, vol. iii. p. 284.

² Bronn's *Klass. u. Ordn. d. Thierreichs*, Porifera, p. 344.