

without subjacent calcareous reticulated skeleton. Paxillæ small and compact. Numerous papulæ in the interspaces.

Marginal plates arranged in superior and inferior series, small, and covered with very numerous spinelets similar to those of the paxillæ.

Actinal interradial areas extensive, and occupied by imbricating intermediate plates, arranged in isolated transverse columns, running from the adambulacral plates to the marginal plates: the whole area covered with a uniform epidermal layer of membrana. Each intermediate plate bears a single well-developed naked paxilla.

Adambulacral plates broader than long. Adambulacral armature consisting of numerous delicate tapering spines, irregular in disposition, forming a group which occupies the surface of the plate, the size of the spines increasing towards the furrow margin of the plate.

Mouth-plates forming a pointed mouth-angle, superficies prominent, covered with spines similar in form and character to the adambulacral spines, but larger.

Ambulacral tube-feet with a well-developed terminal disk or button, devoid of spicules.

Madreporiform body either concealed by paxillæ, or large and exposed.

No pedicellariæ of any kind are present.

Remarks.—I have placed this genus—to a certain extent, provisionally—under the family *Pentagonasteridæ*; for although a number of its characters indicate a position near to such forms as *Gnathaster*, I consider that much might be said against its being ranked in this family at all, and much might be advanced in favour of its being classed with the *Astropectinidæ*,—its resemblance in many points of structure to such forms as *Leptoptychaster* being very remarkable. As I do not feel at present in a position to clear up the doubt satisfactorily, I have placed the genus apart, though in what seems to me its most natural place, until a more definite opinion can be arrived at.

Chorology of the Genus Mimaster.

a. Geographical distribution:—

ATLANTIC: One species between the parallels of 55° and 65° N.

Mimaster tizardi, in the Faerøe Channel.

PACIFIC: One species between the parallels of 40° and 60° S.

Mimaster cognatus, off the western coast of the southern point of America.

β. Bathymetrical range: 245 to 1325 fathoms.

Greatest range of one species: *Mimaster cognatus*, 245 to 1325 fathoms.

γ. Nature of the Sea-bottom: Mimaster tizardi is found on mud; *Mimaster cognatus* on Blue mud.