

massive. Covered with hyaline, deciduous granules; devoid of spines, excepting one adpressed, flattened, lateral spine on the infero-marginal plates. Deep, well-defined channels along the sutures between successive plates, the margins bordered with a webbed fringe formed of small spinelets enveloped in a continuous membranous investment; the fringe continuous round the inner end of the supero-marginal plates.

Abactinal area with paxillæ. Paxillæ with very massive basement plates, suboval internally, pedicle columnar, crown with one or more central granules on the tabulum, surrounded by a marginal series of short spinelets, which radiate horizontally, and are united, at least in part, by a membranous web.

Adambulacral plates superficially subquadrangular or rhomboid; the furrow margin with a series of short, subcylindrical spinelets, five or six in number, forming a small radiating comb; the other three margins bearing small, skin-covered, papilliform spinelets, directed over a channel which intervenes between adjacent adambulacral plates, and also between the adambulacral and the marginal plates. Actinal area of the adambulacral plates covered with skin and devoid of spines. Ambulacral furrows entirely closed by the adambulacral plates and their armature, when contracted.

Actinal interradial areas well developed, with a few large plates, regular and pavement-like in their disposition, covered with hyaline deciduous granules, each plate margined with a webbed fringe like that on the marginal plates; well-defined channels along the suture lines of the plates.

Superambulacral plates present. Tube-feet conically pointed.

No anus. No pedicellariæ.

*Remarks.*—The type of this remarkable genus is the starfish to which Müller and Troschel gave the name of *Archaster hesperus*. Specimens, nearly all in a dry state, are to be found in the British Museum, as well as in several of the Continental museums, but the form has nevertheless been left in its anomalous position, although other observers have noted some of its remarkable characters. Under these circumstances I have given below an account in detail of its general structure. It will be seen to have nothing of generic import in common with the two other members of Müller and Troschel's genus *Archaster*, *Archaster typicus* and *Archaster angulatus*, or indeed with the other forms which have been hitherto ranked as *Archaster*. The presence of the superambulacral plates, the conical pointed tube-feet, the absence of an anus, and also the absence of pedicellariæ, would seem naturally to associate this form with the *Astropectinidæ*, whilst the massive granulose plates, devoid of all spines excepting the lateral, with their singular marginal fringe, the character of the adambulacral plates and their armature, and likewise that of the actinal intermediate plates, constitute a series of structures that isolates the form very distinctly from other genera at present known.