

immediately past the ambitus the primaries are reduced to a single vertical row of a much smaller size than those of the actinal surface, placed in the central part of the coronal plates and extending nearly of uniform size to the abactinal system. The rest of the plate (Pl. VII. fig. 5) carries a few secondary tubercles and miliaries irregularly arranged, the former forming indistinct vertical rows, the latter indistinct horizontal lines. The poriferous zone is of nearly uniform width, from the actinal edge to the apical system. The actinal cuts (Pl. VII. fig. 3) encroach deeply upon the interambulacral plates; there is no tendency to expansion of the poriferous zone at the actinostome. The bare median interambulacral spaces (Pl. VII. fig. 1) as seen from above are ill-defined, and have not the prominence they take in *Astropyga*. The pedicellariæ of the lower surface are narrow-headed, elongate, with a long stem; they are similar in the ambulacral and interambulacral areas of the actinal and abactinal sides. The apical system (Pl. VII. fig. 6) is characterised by the small anal system covered with numerous irregularly-shaped plates, carrying few miliaries near the genital edge. The genital plates are uniform in size, pentagonal, with rounded points; the genital openings are large, and are placed near the pointed extremity as in the Diadematidæ. The madreporic body is not prominent, the ocular plates are hexagonal, they carry five to seven miliaries irregularly placed like those of the genital plates near the anal edge.

In younger specimens (Pl. VII. figs. 7-9) the principal differences consist in the comparatively larger size of the primary tubercles of the abactinal region, their smaller number on the actinal surface and the larger size of the plates covering the anal system. The genital plates are less elongated, the ocular and genital plates resembling at this early stage in their arrangement that of the genital ring of *Aspidodiadema*. A young specimen measuring 26 mm. in diameter shows that in this species the changes due to growth are readily traced; they consist in the smaller number of coronal plates and the smaller number of the primary and secondary tubercles, but their ultimate arrangement is already indicated in this smaller specimen. The spines are, however, proportionally much longer, equalling in length nearly one-half the diameter of the test. The spines in this specimen are still white, only a few contain a slight trace of light violet pigment matter tinting the extremity of the spines or forming irregular patches or transverse bands on the spines. The imbricating plates of the actinal membrane are very distinct. The difference in size between the genital and ocular plates of the anal ring is hardly appreciable, it was already quite small in that of the young specimen figured on Plate VII. fig. 9.

In large specimens the colour of the test in alcohol is a dark violet, the spines of a dark violet brown.

Station 174. August 3, 1874. Lat. 19° 10' S., long. 178° 10' E.; no fathoms on label. Text. 255, 610, and 210 fathoms; bottom temperature at 600 fathoms, 3.7° C.; globigerina ooze.

Station 219. March 10, 1875. Lat. 1° 50' S., long. 146° 42' E., 150 fathoms; mud.