

resembles more that of *Centrostephanus* and *Aspidodiadema*, and in the greater rigidity of the test, as in *Diadema*; the bare sunken median interambulacral space extending from the apical system towards the ambitus, so characteristic of *Astropyga*, is in this genus narrow; it bears, as in *Astropyga*, small primary tubercles, forming two vertical rows along the median ambulacral line. The primary tubercles of the interambulacral areas above the ambitus are placed in the centre of the plates, and arranged in one principal vertical row, with irregular rows of smaller secondary tubercles. As in *Astropyga* the actinal floor is thickly covered with large primary tubercles, deep actinal cuts are present, the poriferous zone is narrow, the pores are in pairs arranged in two vertical rows, the spines of the abactinal surface are short and slender like those of *Astropyga* proper, while on the actinal side they are more or less club-shaped, or trumpet-shaped, resembling somewhat the actinal spines of *Asthenosoma* and *Phormosoma* (but they are not tipped with a hoof as in some species of these genera), with which both this genus and *Astropyga* have many points in common, forming a connection as it were between the Diadematidæ proper and the Echinothuridæ. The primary and secondary tubercles are perforate, but not crenulate. The primary and secondary ambulacral and interambulacral radioles are similar in structure, with exceedingly fine verticillations, forming in older specimens a delicate longitudinal striation.

In *Micropyga* the long-headed pedicellariæ closely resemble those of the Diadematidæ.

**Micropyga tuberculata* (Pls. VII., XXXIX. figs. 1, 2; Pl. XL. figs. 26-28; Pl. XLIV. fig. 37).

Micropyga tuberculata, A. Agassiz, 1879, Proc. Am. Acad., vol. xiv. p. 200.

This is a large species, measuring no less than 200 mm. in diameter, the actinal surface is flat (Pl. VII. fig. 2), the ambitus making a sharp angle with it, and the test is regularly arched towards the low flattened abactinal surface. On the actinal interambulacral spaces the primary tubercles are arranged in a single horizontal row, occupying, with the exception of a few miliaries, the whole of the coronal plate, they form a close pavement (Pl. VII. figs. 2, 4), and increase uniformly in size from the actinal edge to the ambitus, making more or less irregular vertical rows, radiating from the actinostome, there being from six to seven rows at the ambitus. In the ambulacral areas the primary tubercles, arranged in only two vertical rows, increase regularly in size towards the ambitus (Pl. VII. figs. 2, 4), where they as well as the interambulacral tubercles are largest, and while occupying there nearly the whole of the ambulacral plates between the poriferous zone, become reduced on the abactinal surface to small secondary tubercles placed in the centre of the ambulacral plates, which carry, besides, a few small miliaries or granules, occurring irregularly on the plates (Pl. VII. fig. 1, 7). The same rapid change takes place in the size of the primary tubercles of the interambulacral areas of the abactinal surface (Pl. VII. fig. 1);