

lation. The genital plate carrying the madreporic body is raised round the edges, depressed in the centre, and extremely prominent. The anal opening is in the centre of the anal system in the middle of a small ring formed by the rising of the integument of the anal system. On the actinal side the large primaries of the interambulacral areas are arranged in horizontal rows (Pl. XVII. fig. 1), well separated by irregular groups of secondaries and miliaries, the tuberculation is quite regular in size over the whole of the interambulacral areas. In the ambulacral areas there are from two to three primary tubercles on each plate, between the poriferous zone and the median line separated by one or two miliaries or secondaries (Pl. XVII. figs. 1, 6), with a horizontal line of secondaries separating the rows of pores towards the outer edge of the plates and a cluster of the smaller tubercles near the median angle of the ambulacral plates.

On the abactinal side the coronal plates become very gradually narrower and narrower as they extend from the ambitus towards the abactinal system, and at the same time the integument of the test separating the plates increases in width; the primary tubercles diminish gradually in size and distinctness (Pl. XVII. fig. 2) until towards the abactinal system the tubercles are reduced to indistinct granules (Pl. XVII. fig. 3), forming more or less regularly curved narrow bands, with a re-entering curve towards the median line, indicating the position of the interambulacral coronal plates (Pl. XVII. fig. 2).

The same takes place in the median ambulacral spaces, but as the tubercles are originally smaller the change takes place nearer the ambitus. In the median ambulacral line a bare band separates the tubercles of adjoining plates, and a similar bare band separates the outer row of pores from the interambulacral plates. The poriferous zone is broad at the ambitus: it is broader than the corresponding part of the ambulacral plate. It diminishes very gradually in width towards the abactinal system, and forms on the abactinal side of the test three vertical rows of pairs of pores (Pl. XVII. fig. 2). The two inner rows are placed quite close together, the outer well separated from the two inner rows (Pl. XVII. fig. 5) and further distinguished by a vertical row of small secondary tubercles running between it and the two rows. On the actinal side these three rows can be distinguished only near the ambitus (Pl. XVII. fig. 1); they soon become extremely irregular by the gradual narrowing of the poriferous zone, so that about half-way between the ambitus and the actinal edge the three rows are united (Pl. XVII. fig. 6), the pairs of pores having become contiguous and forming a slightly oblique row of three pairs of pores.

This species is probably the same which Grube first described as *Asthenosoma varium*. His original description was, however, so short that Echinologists did not recognise the importance of the discovery of the genus, and Thomson himself when he first mentions *Calveria* in the Depths of the Sea could not suspect its identity with *Asthenosoma*, as *Calveria* does not possess the peculiar sheathed spines so characteristic of