

and five large round openings in the ovarial plates in the centre of which open the wide ducts from the ovaries. The jaw pyramid, 'Aristotle's lantern,' is large and strong, and formed on the plan of the *Diadematiidæ*, and the teeth are large and simply channelled. The point of structure, however, in which *Calveria* differs from all previously described recent urchins is the arrangement of the ambulacral and interambulacral plates. These, instead of meeting edge to edge and abutting against one another so as to form a continuous rigid shell as in most other echinids, overlap one another; the plates of the interambulacral area from the apical pole towards the mouth, those of the ambulacral area from the mouth towards the apical disk (Fig. 28). In *Calveria*, the outer portions of the interambulacral plates leave spaces between them which are filled up with membrane, and the inner ends of the plates form large wide expansions, which overlap greatly. The ambulacral pairs of pores are singularly arranged: they are in arcs of three, but two of the pairs of each arc penetrate small special accessory plates, while the third pair penetrates the ambulacral plate near the end. The outer ends of the interambulacral plates overlap the outer ends of the ambulacral plates, so that the ambulacral area are essentially within the interambulacral. The interambulacral plates bear each close to the outer end where they overlap the ambulacral plates, a large primary tubercle; and two imperfect rows of primary tubercles bearing long spines are ranged in the middle of the ambulacral area; the remainder of the surface of the plates is thickly studded with secondary tubercles and miliary grains.