

pores of the urchins, these were absent in alternate series. Some points about this fossil, particularly the imbricated arrangement of the plates over portions indicating a circle at least four inches in diameter, caused great difficulty in referring it to its place. Edward Forbes examined it, but would not hazard an opinion. The general impression was that it must be the scaly peristome of some large urchin, possibly of a large *Cyphosoma*, a genus abundant in the same bed. Some years after the discovery of the first specimen, a second was obtained by the Rev. Norman Glass, from Charlton in Kent. This specimen appeared at first to solve the difficulty, for it contained in the centre a well-developed 'lantern of Aristotle;' there then was the peristome of the urchin, of which Mr. Flower's specimen was the periproct. The late Dr. S. P. Woodward examined the two specimens carefully, and found that the question was not so easily settled. He detected the curious reversal of the imbrication of the plates in the ambulacral and interambulacral areas which I have described in *Calveria*, and at one point he traced the plates over the edge of the specimen, and found that they were repeated inverted on the other side. With great patience and great sagacity he worked the thing out, and came to the conclusion that he was dealing with the representative of a lost family of regular echinids.

Woodward names his new genus *Echinothuria*, and describes the chalk species, *E. floris*, almost as fully and accurately as we could describe it now with a full knowledge of its relations -- for *Echinothuria* is closely related to *Calveria* and *Phormosoma*. In all