

layer, when detached, exactly resembling a thick patent watch-glass, concave on its under, convex on its upper, surface. Now, each of these formed, in its original state, not a solid mass, but a hollow, thinly partitioned chamber or storey; and, perforating the entire range of storeys from apex to base, there was a cylindrical pipe, just as the reader must have seen the cylindrical case of a turnpike stair passing upwards through the storeys of some ancient tower from bottom to top. And this pipe was the siphuncle or pump through which the creature regulated its specific gravity, and sank to the bottom or rose to the surface, just as it willed. Mr. J. S. Miller, well known for his labours among the Crinoidea, mentions, in his paper on Belemnites, an interesting experiment with regard to the cone. He extracted it carefully from one of his specimens, and then inserting in the hollow of the stony column which it had occupied, a cone of oiled paper filled with cotton, he placed the specimen in water, and found the buoyancy of the cone compensating so completely for the density of the column, that the whole floated. Now, to demonstrate the use of the ballasting column, let us imagine a sail raised over the cone, and the whole sent to sea in a high wind. Has the reader ever sailed, when a boy, his mimic ship, and does he remember how imperative it was that there should be lead on the keel? The stony column is the lead here; and from the form of the creature, as indicated in the entire specimens, some such internal ballasting seems to have been as essential to preserve its upright position as the lead is to the boy's ship. There are, however, but few of our naturalists who believe, with Mr. J. S. Miller, that the column was originally the dense and solid body it is now. Lamarck held that, like the bone of the existing *sepia*, it was of 'a spongy and cellular texture;' Parkinson, that it was 'porous or cork-like;' and Buckland, that 'the idea of its having been heavy, solid, and stony, while it formed part of a