

Eighty-eight species of Belemnites have already been discovered;\* and the vast numerical amount to which individuals of these species were extended, is proved by the myriads of their fossil remains that fill the Oolitic and Cretaceous formations. When we recollect that throughout both these great formations, the still more numerous extinct family of Ammonites is co-extensive with the Belemnites; and that each species of Ammonite exhibits also contrivances, more complex and perfect than those retained in the few

cone of the Belemnite, beyond the base of its hollow calcareous cone, (Pl. 44', Fig. 7, e. e'. e'). This horny sheath of the Belemnite was probably formed by the prolongation of the horny laminae which were interposed between its successive cones of fibro-calcareous matter.

The chambered alveolus of the Belemnite is represented by the congeries of thin transverse plates, (Pl. 44', Fig. 4, b.) which occupy the interior of the shallow cup of Sepiostaire, (e. e.); these plates are composed of horny matter, penetrated with carbonate of lime.

The hollow spaces between them, (Fig. 5, b, b'), which are nearly a hundred in number in the full grown animal, act as air chambers to make the entire shell permanently lighter than water; but there is no siphuncle to vary the specific gravity of this shell; and the thin chambers between its transverse plates are studded with an infinity of minute columnar, and sinuous partitions, planted at right angles to the plates, and giving them support. (Fig. 6', 6'', 6''').

The absence of a siphuncle renders the Sepiostaire an organ of more simple structure, and of lower office, than the more compound shell of Belemnite.

\* (See index to M. Brochant de Villiers' Translation of De la Beche's Manual of Geology).