

London, 1826, and that of Sowerby, in his *Min. Conch.* vol. vi. p. 169, et seq.

A Belemnite was a compound internal shell, made up of three essential parts, which are rarely found together in perfect preservation.

First, a fibro-calcareous cone-shaped shell, terminating at its larger end in a hollow cone (Pl. 44, Fig. 17. and Pl. 44', Fig. 7, 9, 10, 11, 12).*

Secondly, a conical thin horny sheath, or cup, commencing from the base of the hollow cone of the fibro-calcareous sheath, and enlarging rapidly as it extends outwards to a considerable

* This part of the Belemnite is usually called the *sheath*, or *guard*: it is made up of a pile of cones, placed one within another, having a common axis, and the largest enclosing all the rest. (See Pl. 44, Fig. 17.) These cones are composed of crystalline carbonate of lime, disposed in fibres that radiate from an eccentric axis to the circumference of the Belemnite. The crystalline condition of this shell seems to result from calcareous infiltrations (subsequent to interment), into the intervals between the radiating calcareous fibres of which it was originally composed. The idea that the Belemnite was a heavy solid stony body, whilst it formed part of a living and floating sepia, would be contrary to all analogies afforded by the internal organs of living Cephalopods. The odour, resembling burnt horn, produced on burning this part of a Belemnite, arises from the remains of horny membranes interposed between each successive fibro-calcareous cone.

An argument in favour of the opinion that Belemnites were internal organs, arises from the fact of their surface being often covered with vascular impressions, derived from the mantle in which it was inclosed. In some species of Belemnites the back is granulated, like the back of the internal shell of *Sepia officinalis*.