that the *Belemno-sepiæ*,† from which they were derived, attained great size.

The fact of these animals having been provided with so large a reservoir of ink, affords an *à priori* probability that they had no external shell; the ink-bag, as far as we yet know, being a provision confined to naked Cephalopods,

† In 1829, I communicated to the Geological Society of London a notice respecting the *probable* connection of Belemnites with certain fossil ink-bags, surrounded by brilliant nacre, found in the Lias at Lyme Regis. (See Phil. Mag. N. S. 1829, p. 388.) At the same time I caused to be prepared the drawings of fossils, engraved in Pl. 44″, which induced me to consider these ink-bags as derived from Cephalopods connected with Belemnites. I then withheld their publication, in the hope of discovering *certain* demonstration, in some specimen that should present these ink-bags in connection with the sheath or body of a Belemnite, and this demonstration has at length been furnished by a discovery made by Professor Agassiz (October, 1834), in the cabinet of Miss Philpotts, at Lyme Regis, of two important specimens, which appear to be decisive of the question. (See Pl. 44′, Figs. 7, 9.)

Each of these specimens contains an ink-bag within the anterior portion of the sheath of a perfect Belemnite; and we are henceforth enabled with certainty to refer all species of Belemnites to a family in the class of Cephalopods, for which I would, in concurrence with M. Agassiz, propose the name of *Belemno-sepia*. Such ink-bags are occasionally found in contact with traces of isolated alveoli of Belemnites: they are more frequently surrounded only by a thin plate of brilliant nacre.

The specimen (Pl. 44″, Fig. 1,) was procured by me from Miss Mary Anning in 1829, who considered it as appertaining to a Belemnite. Near its lower end we see the lines of growth of the horny anterior sheath, but no traces of the posterior calcareous sheath; within this horny sheath is placed the ink-bag. The conical form of this anterior chamber seems to have been