

the circular lines on the surface of its horny membrane *d*, are lines of growth. (Original.)

Fig. 3. Belemno-sepia from the Lias at Lyme, in the Oxford Museum; the Ink-bag is preserved entire within the anterior conical sheath *e. e. e.*; the greater part of this sheath is highly nacreous, in a few places (*d.*) it is horny. (Original.)

Fig. 4. Large Ink-bag from the Lias at Lyme, in the collection of Mrs. Murchison, bearing on its surface undulating lines of growth similar to those on the surface of Fig. 1. The Ink is exposed at *c. c.*; in other parts it is surrounded by the sheath, *e. e. e.* Nearly one-half of this sheath retains the appearance of horn, whilst the other half is highly nacreous. This interchange of condition, from horn to brilliant nacre, occurs in almost every specimen from the Lias at Lyme, in which the Ink-bag is accompanied only by the flexible anterior sheath, and the calcareous sheath has perished. (Original.)

Figs. 5. 6. 7. 8. Ink bags from the Lias at Lyme, partially surrounded by brilliant nacre. In no one of the specimens represented in Pl. 44" is the least trace of the calcareous sheath of the Belemnite preserved. See V. I. p. 376, Note. (Original.)

PLATE 45.\* V. I. p. 392 et seq.

Fig. 1. *Limulus Americanus* (Leach), a young specimen from Honduras, one third of nat. size. *b*. Right compound Eye magnified. *b''*. Two single

\* The following letters are applied in Pl. 45 and Pl. 46, to corresponding parts of different animals. *a*. the shield; *a'*. lateral portion of the shield; *b*. the eye; *b'*. eye magnified; *b''*. frontal eyes; *c*. the back; *d*. the tail; *e*. branchiæ.