NOTE ON THE TYPE-SPECIMEN OF *CRIOCERATITES*
BOWERBANKII, J. DE C. SOWERBY.¹

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Read 12th January, 1917.

PLATE VII.

THE type-specimen of *Crioceratites bowerbankii*, formerly in the Bowerbank Collection, now forms part of the British Museum collection [Brit. Mus. No. 46474]. The present writer's attention was directed to it recently in connexion with the description² of an ammonoid, *Ammonitoceras tovilense*, from the Lower Greensand (Aptian) of Kent, and two or three features about the specimen that had not hitherto been recorded seem to deserve notice.

Sowerby's³ description of the fossil was communicated to the Geological Society of London in a letter which was read on March 8th, 1837. In his letter Sowerby writes: "The recent discovery in the Isle of Wight, by Mr. Bowerbank, of a fossil shell resembling *Ammonites*, but differing essentially from that genus, and of a magnificent *Scaphites*, appears to me of sufficient importance to be laid before the Geological Society; I have, therefore, drawn up the following descriptions, accompanied by reduced figures of the fossils. pl. xxxiv."

His description of *Crioceratites bowerbankii* is as follows: "The gigantic species from the Isle of Wight I shall name, after its discoverer, *Crioceratites bowerbankii*, pl. xxxvi, fig. 1. Spec. Char.—Whorls about four, slightly flattened on their sides, and nearly close; the inner one ornamented with numerous radiating furrows, which, gradually disappearing upon the outer whorl, are replaced by eight or ten thick, arched costæ, extending completely across the whorl, and largest and most elevated towards the thinly edged, transversely oblong aperture.

"The septa are rather distant, terminating where the costæ begin to enlarge. There is generally a short rib almost close to the aperture, and in one specimen I have noticed an additional short rib between the two long ones which precede the termination. In an individual sixteen inches wide, the septa are one inch and a half apart.

"The fossil occurs in the lower green sand on the south coast of the Isle of Wight."

The type-specimen is very well represented in Sowerby's figure, the enormous enlargement of the ribs on the body-chamber being well shown. Of these ribs, and counting from the aperture, the two largest are the third and fifth, the fourth is a trifle

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² G. C. Crick, Proc. Malac. Soc., vol. xii, November, 1916, pp. 118-20, pl. vi.

³ "Letter from Mr. James de Carle Sowerby to the Secretary, on the Genus *Crioceratites* and on *Scaphites gigas*": Trans. Geol. Soc. London, ser. II, vol. iv, p. 409, pl. xxxiv.

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LOWER GREENSAND. I. OF WIGHT.

thicker but not quite so prominent. The last two, however, show a considerable diminution in size. About 40 mm. in front of the last complete rib there is another obscure rib, most apparent near the periphery, and about 20 mm. in front of this a portion of the peristome is visible. The peristome was plain, and in the fossil, which it must be remembered is an internal cast, there are several fairly-coarse lines of growth immediately posterior and parallel to it.

Not only are the ornaments much more feeble, but the body-chamber itself is very much reduced in front of the third (counting from the aperture) large rib. True the (morphological) left side of the fossil is abraded, but the fossil does not appear here to be either distorted or crushed. This condition of the anterior end of the body-chamber is evidently a senile character and indicates the extremely feeble condition of the animal and its approaching death.

Although the rough surface of the specimen, which is an internal cast, is not favourable for the preservation of delicate lines, there is what appears to be an obscure indication of one of the muscle-scars. When complete the scar seems to have been an oval area truncated posteriorly, approximately 45 mm. long and 40 mm. wide, but only its anterior and inner boundaries are preserved as an obscure impressed line. Commencing on the umbilical margin at a point half-way between the sixth and seventh (counting from the aperture) ribs the line passes forward and inward over the margin to within about 30 mm. of the suture of the shell, it then curves backward still passing inward until at about 28 mm. from its most anterior part it is only 10 mm. from the suture of the shell, then curving slowly outward it can be traced nearly as far as the last septal-suture.

EXPLANATION OF PLATE VII.

Crioceratites bowerbankii, J. de C. Sowerby, from the Lower Greensand, Aptian, Isle of Wight. Type-specimen. British Museum Collection, register number 46474.

- FIG. 1.—Lateral aspect, showing the rapid decrease in size of the anterior part of the body-chamber. The body-chamber commences immediately above the left-hand edge of the scale. *m.sc.* anterior boundary of muscle-scar.
- „ 2.—Peripheral view, showing the enormously-enlarged ribs on the body-chamber.
- „ 3.—Apertural view (with the aperture turned slightly to the right), showing the rapid decrease in size of the anterior part of the body-chamber and (*m.sc.*) the boundary of the muscle-scar.
- (In each figure the scale represents 4 inches = 10·15 cm.)