

NEW LOCALITY FOR *LEAIA*.

SIR,—Mr. J. W. Kirkby, of Pirnie Colliery, near Leven, Fife, has kindly sent me a piece of ironstone, containing casts of two valves (perhaps a pair) of *Leaia* (spec. indet.), from the spoil of an old ironstone pit, north of Wemyss, Fifeshire, and informs me that its geological position is in the lower part of the Coal-measures. This, then, is a new locality for the interesting genus *Leaia*. See *GEOL. MAG.*, Vol. VII. p. 219; and Vol. VIII. p. 98.

September 22, 1874.

T. RUPERT JONES.

## RHÆTIC BEDS NEAR NEWARK.

SIR,—In the *GEOLOGICAL MAGAZINE* for July, 1874 (p. 318), the Rev. A. Irving points out the occurrence of the Rhætic beds at Newark, and makes a few remarks upon the White Lias, which is not seen *in situ*, although what appear to be fragments of it are found in the soil above.<sup>1</sup>

While engaged in the spring-time of last year in tracing out the Rhætic beds near Newark, I was (owing to the absence of sections) for some time at a loss to fix the boundary line between these beds and the Lower Lias above. The lower members of the Rhætic beds, as Mr. Irving describes them, are well shown in the plaster-pits above Newark, and consist of the black paper-shales and greenish-yellow marls, resting upon the red and mottled gypseous marls of the Keuper.

An examination in company with my colleague Mr. W. H. Holloway, of the excellent section near Barrow-on-Soar, showed that above the black shales there was a considerable thickness of apparently unfossiliferous grey earthy marl, capped by a hard bed, which I took to represent the upper limit of the Rhætic formation. Above it the ordinary Lower Lias limestones and clays come on.

Subsequently Mr. Holloway and myself had a Lias quarry on the Coddington road, near Newark, deepened, and at the base of the Lower Lias series there was exposed a hard compact homogeneous limestone, in texture not unlike the "Sun-bed" of the West of England. This bed was much water-worn, and owing to the action of the water sustained by clayey beds beneath it: such was its power, indeed, that the bed was worn into fantastic shapes, well justifying the quarrymen's term of "Flints." This bed of "Flints" is no doubt homotaxeous with the hard bed in the Barrow section, and the clayey beds beneath may similarly be identified with the earthy marls of the same section, although in the Newark country the rarity of pits and exposures and the great deposits of drift preclude its being observed.

The total thickness of the Rhætic beds at Newark, according to measurements and estimates by Mr. Holloway and myself, is about 50 feet. Further details on the subject, however, must be reserved for the Survey publications.

MOUNT PLEASANT, NEWTON ABBOT,  
23rd September, 1874.

HORACE B. WOODWARD.

<sup>1</sup> Mr. F. M. Burton has noticed the similar occurrence of fragments of White Lias in the section at Lea, near Gainsborough (*Quart. Journ. Geol. Soc.* 1867, p. 315).