

the New Red Sandstone plain of Cheshire to those of North Wales. But more than that, I take it that the patch of Carboniferous Limestone near Corwen, together with the Flintshire escarpments, makes it almost certain that the whole Carboniferous formation spread formerly over the greater part of North Wales, with just a few island-peaks of older rocks, perhaps, rising up through it. In short, I believe that, with the possible exception of a few isolated points there and elsewhere, as in Cumberland and about the Southern Highlands of Scotland, the whole of the Southern half of Scotland and all England and Wales were, at the close of the Carboniferous period, covered by level and continuous sheets of Coal-measures.

Local thinnings and thickening of the beds there were, doubtless, in all directions.

As to Ireland, I have long taught in my lectures, and I believe demonstrated, that, with the exception of a few small isolated peaks of the Older Palæozoic rocks, it also was at the same period one great plain of Coal-measures, whether above or under water.

How far the Carboniferous Limestone of the Isle of Man proves that the English and Irish Carboniferous formations were then connected across what is now the Irish Sea, I forbear to decide. My own private opinion is that they were more or less connected, just as at a later period the Red Marls and Lias of Antrim were continuous with those of Cheshire, Worcestershire, and Gloucester.

I almost fear that I am writing what to many persons will appear mere common-place truisms; but the expressions of your Reviewer have induced me to run the risk of that imputation rather than that any persons should retain what I believe to be erroneous and narrow views in our science.

The portions of the Palæozoic rocks still left in our islands are only the mere ruined fragments and foundations of those that once existed. The hole in the Chalk that occurs in the Wealden district excites attention because, from its comparatively slight extent, people can see that it is a hole, while the far more extensive destruction of the older rocks has been so great that the former continuity of their fragments is ignored or discredited.—Yours, &c.,

J. BEETE JUKES.

DUBLIN: *Feb.* 6, 1865.

2. CARBONIFEROUS SANDSTONE WITH SURFACE-MARKS.

[Plate IV.]

To the Editor of the GEOLOGICAL MAGAZINE.

SIR,—Having lately obtained a slab of one of the Carboniferous sandstones (a few feet below the ‘Yard-seam’ and above the ‘Five-quarter-seam’ at Bowden-close, in the Bishop-Auckland Coal-field, Co. Durham), which bears about fifty impressed hoof-shaped marks, and not being aware that any such markings, usually supposed to be foot-prints of some animal, have been found lower down than the



MARKINGS ON THE SURFACE OF SANDSTONE.

New Red Sandstone, I have sent you a photograph (Pl. IV.) of the surface of the slab, showing both large and small marks, just as if an old hooped animal and several young ones had crossed the sand. The slab is 15 inches by 12; and as it has formed part of a pavement in the village of Crook for about seven years, it has been somewhat foot-worn. The sandstone from which the slab comes is thick-bedded and good for building above, and laminated lower down in layers from $1\frac{1}{2}$ to 4 inches thick, of a whitey-brown colour, and used for flagging. The marked surfaces of the sandstone are often covered by a seam of sandy clay from 1 to 3 inches thick.

—Yours, &c. JOSEPH DUFF.

HUNTER-HILL COTTAGE, ETHERLY, near BISHOP-AUCKLAND: Dec. 14, 1864.

NOTE.—Semicircular impressions, with a raised border, but of larger size than those noticed by Mr. Duff, have been described by Mr. Babbage, in the *Proceed. Geol. Soc.*, vol. ii. p. 439, as occurring in the Farewell Rock (Millstone-grit) of South Wales; and others have been noticed in the Old Red Sandstone of Forfarshire, where they have been known as ‘Kelpies’ Feet.’ (Lyell.)

The sand resting against stranded *Medusæ* on a beach, and against the hoof-shaped egg-cases of *Naticæ*, has been suggested (by Lyell) as a possible cause for such markings.—EDIT.

EXPLANATION OF PLATE IV.

Surface-marks on a slab of Carboniferous Sandstone, from near Bishop-Auckland, rather less than half the natural size. Fac-simile (on zinc) of a Photograph.

To the Editor of the GEOLOGICAL MAGAZINE.

SIR,—May I be allowed to suggest that part of the GEOLOGICAL MAGAZINE be devoted to *Notes and Queries*? They would prove a source of much interest to country Geologists, and form a medium of communication between distant subscribers. No doubt many points of interest are lost from the fact that local observers have no medium through which they may explain their doubts and confess their ignorances. Would you, Mr. Editor, put yourself out of the way to answer questions touching facts of geological interest, not generally known, and will you allow me to close this letter with one or two queries?

1. What is the present generally received opinion as to the origin and formation of Flints in Chalk; and where can I find the *latest* accounts of them? [See the Report of the Norwich Geological Society, at p. 132; also Lyell’s new edition of the ‘Elements of Geology’ just out.]

2. Which is the highest chalk in England, and what relation does it bear to the Maestricht Beds? [The Norwich Chalk; but somewhat older than that of Maestricht.]

3. Required a classified stratigraphical account of the Chalk-formation. [See the Notice of M. Reynès’ Memoir, at p. 113.]

Yours, &c., G. D.

P.S. I have consulted Conybeare and Phillips's account of the Chalk of Dover and Thanet, Mantell's account of the Geology of Sussex and S. E. of England, and Sir C. Lyell's 'Manual of Geology,' 5th edition and Supplement, 1857, on this subject, and am asking for later information.

[Instead of replying at large to the above queries, the EDITOR refers to the indicated articles in the GEOLOGICAL MAGAZINE, and will be glad to receive replies from Correspondents.]

BELGIAN BONE-CAVES.

To the Editor of the GEOLOGICAL MAGAZINE.

SIR,—In a recent number of the 'Times' there is an extract from 'Galignani's Messenger,' stating that, in a paper addressed to the Belgian Academy of Sciences, M. Van Beneden gives an account of some *human* and animal remains discovered by him in a grotto in the Valley of the Lesse. The human bones were found together with those of bears, oxen, horses, *reindeer*, beavers, several beasts of prey, birds, fish, &c.

You would greatly oblige many of your readers if you would give them some account of this grotto, and the fossil remains found in it, and state *your* theory with respect to them. Your obedient servant,

THOMAS DAWSON.

LONDON: *January 18, 1865.*

Note.—Brief notices by M. Van Beneden of this and neighbouring bone-caves are given in the 'Reader' of Jan. 7th and Feb. 11th. The points of special interest appear to be:—1. The discovery of another district, besides that of Central and Southern France, where the *Reindeer* (now confined to Arctic regions) existed with Man in prehistoric times; 2. The finding of well-preserved bones (especially skulls, indicating possibly two races) of the Men of that period; 3. The probability of water having flooded the cave since its contents were deposited therein; 4. The height of the cave above the Lesse (some 40 yards) in the cliffs of Mountain-limestone, without any other entrance than in front.

If the river flooded the cave, a great change of level must have been brought about in the valley since Man first inhabited it; but without further details, or personal inspection, it is impossible to form a definite opinion as to the mode of occupation of these caves, and of the imbedding of the bones, &c. Probably, as in the South of France and elsewhere, the old people lived by the chase, keeping their food and cooking it in the caves, and leaving bones, shells, tools, and weapons, broken pottery, &c., mixed up with the rubbish and dirt: accident, neglect, and massacre may have left human bones in the same refuse-heaps. Such caves were entered by rough-cut steps, and natural ledges, with holes for wooden pegs, and perhaps ropes of hide or sinew were used: rain and frost, however, have removed such surface-marks. These Belgian caves yield *pottery*, which is unknown as yet in the Caves of Dordogne.—EDIT. G. M.