

Park,—and from these beds the author considered that his Rhætic pebbles were derived. They have been briefly noticed by Mr. H. H. Howell and the late Professor Jukes. Mr. Molyneux furnishes some notes on his examination of the beds *in situ*. The basement bed of the Rhætic deposits of Needwood consists of a white earthy limestone, from two to four inches in thickness, and containing at times sulphate of strontian. The junction of this bed with the Keuper marls may be seen in the marl quarries of Marchington Cliff on the east, and at several points on the west of Bagot's Park; also at the bottoms of the hills near Kingstanding and Horecross. It generally occurs nearly horizontally, as, in fact, do all the succeeding beds of the series. The best open section to be studied is at Butterwick Hill. The Christchurch section of Brakenhurst Hill is of an exceedingly interesting character. These sections show the first fossiliferous zone to consist of yellow sandstone, full of *Azinus cloacinus*. In the shales of the Brakenhurst Hill section Mr. Molyneux found casts of *Avicula* (?), and he has strong hopes of being able hereafter to add many forms to the list of its Rhætic fauna. It is curious that in none of these beds did the author meet with either limestones or sandstones of the same lithological composition as the pebbles found in the gravel, and he therefore infers that the beds to which they belonged have been carried away by denudation, and scattered in detached fragments far over the hill-tops to the east. The maximum thickness of these remaining Rhætic beds he estimates at 160 feet.—*The Burton Weekly News*, 18th March, 1870.

CORRESPONDENCE.

THE RAILWAY-CUTTING AT UPHILL, WESTON-SUPER-MARE.

SIR,—The section in the railway cutting near Uphill, to which Mr. Mackintosh directs attention in the last number of the *GEOLOGICAL MAGAZINE*, has been noticed by many geologists.

The Lower Lias is shown resting abruptly against, and indeed dipping under the Carboniferous Limestone. This arrangement can in no way be referred to a buried sea-cliff; the Lias Limestones and Clays of the ordinary character are cut off sharply, and present none of the conglomeratic or shallow-water appearances that are usual at the margin of this deposit when reposing on the older rocks.

A fault is the only explanation of the phenomenon; indeed, no other suggested itself to my colleague, Mr. W. A. E. Ussher, or to myself, when we together visited the locality last summer. The hade of the fault, which is south, towards the Carboniferous Limestone, gives it the appearance of a "reversed" fault; but whether this is the real direction of the fault, or merely a local irregularity in the hade of an ordinary fault, it is impossible to say. The upthrow of Carboniferous Limestone must have amounted to about 100 feet.

Other faults of little magnitude affect the beds to the north, where the Rhætic and New Red Marls appear in the cutting. The fault is, indeed, represented on the Geological Survey map, sheet 20, and it

has long ago been pointed out by Mr. William Sanders, Dr. Wright, and others.

HORACE B. WOODWARD.

8, CANONBURY LANE, N., 4th April.

P.S.—Mr. Bristow, F.R.S., informs me that he has seen no reason to form any other opinion than the ordinarily accepted one, of a fault in this railway cutting, on the occasion of visits paid to it in 1867 and 1868.

IGNEOUS ROCKS OF CARBONIFEROUS AGE IN IRELAND.

SIR,—In the article “On the Basaltic Rocks of the Midland Coal-fields,” by Mr. Samuel Allport, F.G.S., which appeared in your last number (p. 159), the author refers to the Scottish igneous rocks of Carboniferous age, but quite ignores those of the same period in Ireland, although descriptions of the latter were published long before those of Scotland.

G. H. KINAHAN.

FOSSIL INSECTS IN THE BOURNEMOUTH LEAF-BED.

SIR,—The Rev. P. B. Brodie, in the March number of the GEOLOGICAL MAGAZINE, p. 141, directs the attention of the explorers of the Leaf-beds in the Lower Bagshot Series of Hants and Dorset, to the desirability of looking out for Insect-remains; particularly at Bournemouth. Mr. Brodie may be glad to learn that Mr. Wanklyn has already recorded the discovery of Insect-remains at Bournemouth, in the Annals and Mag. Nat. Hist. for January, 1869, 4th series, vol. iii. No. 13, p. 10. The specimen has been placed by the discoverer in the hands of Mr. W. S. Dallas, F.L.S., the Assistant Secretary of the Geological Society of London, who has kindly undertaken to examine and describe it.—J. F. WALKER.

MISCELLANEOUS.

THE GIGANTIC OOLITIC LIZARD (*Cetiosaurus*).—We called attention to the discovery of the thigh-bone of this great Lizard (GEOLOGICAL MAGAZINE for July, 1869, p. 336, Vol. VI.) in a quarry at Enslow Bridge, near Oxford. Prof. Phillips now announces¹ the discovery of further remains of *Cetiosaurus*. “The space of ground in which the bones are found (writes Prof. Phillips) is apparently quite limited. One may think the whole body of the vast old lizard, in the extremity of age, was here laid to uneasy rest; the parts separated by decay; the massive limbs disjointed, and the bones displaced. Imagine a surface of the ossiferous clay which covers the Oolite laid bare by the workmen. Look southward: before you are four bones laid rudely parallel, in a row, at intervals of 1, 2, or 3 feet. They are 64, 54, 45, and 37 inches long; 10 inches the least breadth in the narrowest part; 26 inches the greatest breadth in the widest part. These are bones of *Cetiosaurus*. Over them and in front of them, three days since, lay as many others, as large and as quietly reposing in their “longæval” graves; behind them, possibly, are still more bones, to be discovered at some future time. Bones of a much mightier area—probably hugest of all huge ilia—extended far and wide; vertebræ 8, 9, and 11 inches in diameter; monstrous ribs, of which the parts traceable and inferred are 59 inches long; all this within the compass of a few square yards. It seems like the burial-place of the great father of lizards, each of whose bones demanded—but only some could obtain—a separate grave.”

¹ *Athenæum*, No. 2214, April 2nd.