EASTER EXCURSION, 1888.*

PRELIMINARY EXCURSION TO NEWBURY.

FRIDAY AND SATURDAY, MARCH 30TH AND 31ST.

Director: W. WHITAKER, F.R.S., F.G.S., assisted by F. J. BENNETT, F.G.S.

(*Report by* R. S. HERRIES, F.G.S.)

Those of the party who had come down to Newbury on the previous day began the morning of Friday, March 30th, by a visit to the Shaw Kiln, about a mile and a half to the north-east. The two clay-pits here show very good sections of the junction of the Reading beds with the Chalk below and with the London Clay above, and attention was particularly drawn by the Director to the even character of the junction of the Reading beds with the Chalk, and to the fact that the top of the latter is perforated by long tubular holes filled with the green sand of the bottom-bed. This bottom-bed is very full of oyster-shells, and is of marine origin. Above it are light-coloured fresh-water sands, containing a clay band in which impressions of leaves have been found, and Mr. Starkie Gardner said that these were of the same species as those found at Reading. These sands are succeeded, upwards, by the Mottled Clays, and the junction with the London Clay is marked by a bed of flint pebbles, some of which are of great size and easily fractured. The London Clay is here only about 50 feet thick, there being a continual and marked diminution in its thickness as we proceed westwards.

The party then returned to Newbury, passing Shaw House, a stately brick mansion of the time of Queen Elizabeth, which was the head-quarters of King Charles I. during the second battle of Newbury, of which battle Mr. Bennett gave a very interesting account.

At Newbury the party was reinforced by those Members who had come down by the 9.5 train from London, and after a rest all set out on the road to Donnington, with the intention of proceeding northwards across Snelsmore Common to Bussöck Camp. At

* No report of this Excursion was received before the publication of the Excursion Number for 1888.—ED.

Donnington Kiln, another junction-section of the London Clay and Reading beds was seen, though it is, unfortunately, somewhat obscured owing to the pit being no longer worked. Here, as at Shaw, a line of very large pebbles marks the junction between the two formations. On Snelsmore Common there is a gravel of a very pebbly nature, soon after inspecting which it came on to rain so heavily, that, after waiting for some time under the best shelter that could be found, it was decided to abandon the remainder of the programme, and return to Newbury. This was accordingly done, most of the party stopping on the way to inspect the ruins of Donnington Castle, which played an important part in the battle which has already been mentioned.

Had the persistent rain not put a stop to the day's proceedings, the party would have found Bussock Camp to be a square entrenchment, probably of Roman origin, and within it a deposit of flint pebbles about two feet thick capping the highest part of the hill. It is believed that Mr. Whitaker and Mr. Bennett were prepared to argue that this was a Bagshot pebble-bed, a proposition that would not have been allowed to pass unchallenged; and so the party were deprived of the pleasure of hearing one of those animated discussions for the promotion of which the Bagshot Sands seem to have been specially created. For a suggestion as to the probable age of this deposit, see a paper by H. W. Monckton and R. S. Herries "On some Bagshot Pebble-beds and Pebble Gravel" ('Proc. Geol. Assoc.,' Vol. xi, p. 22).

In the evening the party dined at the "Jack," and after dinner Mr. Bennett gave an interesting account of the Newbury Peat, and the proceedings terminated with a hearty vote of thanks which the President proposed to that gentleman for the trouble he had taken in connection with the visit.

On Saturday, the 31st, the party left Newbury by the 8.55 train for Highclere, sending their luggage to Winchester. From Highclere Station they first walked to a sand-pit (mapped as Lower Bagshot) near West Street, about half-a-mile to the south, where Mr. R. S. Herries explained that the sands there should probably be referred to the Upper Division of the Bagshot beds, as first suggested by Dr. Irving ('Q. J. G. S.' Vol. xlv, p. 178); and he gave as his reasons their position near the axis of a sharp syncline, the nature of the sands themselves, their freedom from false-bedding, and the presence in them of casts of marine shells,

of which he had found a considerable number on a previous visit. Mr. Starkie Gardner concurred, though Mr. Bennett did not appear to relish the task of drawing boundary-lines between the subdivisions of the Bagshot in this part of the country.

On the return to the railway, Mr. Whitaker made some remarks on the general structure of the country, in the course of which he pointed out that, owing to the high northerly dip of the Chalk here, about 30° , the whole thickness of the beds from the top of the London Clay to the base of the Chalk only occupied on the map a space of about half-a-mile. The Reading beds were at least 70 feet thick, and he observed that in nearly all cases where there was a high dip there was an unusual thickness of these beds. He also drew attention to the fact that with the high dip and consequent narrowness of the outcrop of the Chalk, that formation made a low ridge, whilst where the dip was low, and the outcrop broad, as was the case a little further south, it had a high escarpment.

The party then proceeded along the line in a southerly direction, first observing the junction of the Reading beds with the Chalk, well marked in the cutting by the occurrence of oysters and green-coated flints. A little further on, the Chalk Rock, which divides the Middle from the Upper Chalk, was seen. It is a remarkably hard bed, and contains fossils and many green nodules. The next cutting was in the Upper Greensand, which is brought up here by an anticlinal, and occupies a tract of country about five miles in length and about a mile and a half in breadth, known as the Kingsclere Inlier. Some fossils were obtained from this, and it was pointed out that the dip to the north was now much reduced, and a little further on, at Burghclere Station, this had become a slight dip to the south.

Here the party left the line, and after inspecting the interesting Norman and Early English Church, ascended Beacon Hill, a beautifully-shaped Chalk Hill, more than 800 feet high, and surmounted by a large and irregularly-shaped camp consisting of a double earthwork and ditch. A discussion took place as to the water-supply of the camp, and Mr. Whitaker and Mr. Bennett seemed to think that it might have been derived from dew-ponds, of which there was one on Ladle Hill, which, with its camp, was conspicuous a mile and a half to the east.

Having disposed of their luncheon, and sufficiently enjoyed the beautiful view, the party made the steep descent in somewhat

irregular order, and once more reached the railway. The dip was now a distinct southerly one, and the Melbourn Rock, which marks the division between the Lower and Middle Chalk, was seen. Further on, attention was directed to some tumuli, known as the Seven Barrows, and Mr. Bennett made some remarks as to the cause of their erection here, suggesting that it was owing to the fact that the Bourne rises at this spot, which led to a discussion on the origin of Bournes, which were said by the Director to be caused by the rising of the underground water until it reaches the surface and overflows, causing an overground stream. In the next cutting the Chalk Rock was again seen, and several fossils, especially some fine Gastropods, which are not common in the Chalk, were obtained. This brought the party to Litchfield Station, where they took the 2.45 train to Winchester, and repaired to the Black Swan. Later in the afternoon the Dean kindly conducted them over the Cathedral, and on the following day the old Hospital of St. Cross was visited, as well as some of the chalk-pits in the neighbourhood. On Monday morning the party joined the main body at Southampton.

EXCURSION TO SOUTHAMPTON.

EASTER MONDAY AND TUESDAY, APRIL 2ND AND 3RD, 1888.

(In conjunction with the Hampshire Field Club.)

Director : W. WHITAKER, F.R.S., F.G.S., assisted by J. STARKIE GARDNER, F.G.S.

(*Report by* R. S. HERRIES, F.G.S.)

Members left London on Monday, April 2nd, by the 8.5 train and at Winchester were joined by those who had taken part in the preliminary Excursion. At Southampton they deposited their luggage, and, being reinforced by a contingent of the Hampshire Field Club, continued their journey to Milton, a station on the new direct line to Bournemouth. Attention was called to the great difficulty the Company had met with in constructing this railway, owing to the remarkable spread of the embankments, by which field after field had been absorbed.

The party walked southwards about three miles to the coast