

ART. II.—*Recent Roman Finds at Waterhead, Windermere.*
By H. S. COWPER, F.S.A.

Read at Durham, June 20th, 1901.

AT the Windermere meeting in 1900, a short report was read on certain finds which had been made in excavating for the new sewage works close to the Roman camp near Ambleside. The works in question were completed before Christmas, and it is desirable to place on record as accurate an account as is possible of all that was noticed.

In excavations of this character, there is often great difficulty in ascertaining the actual connection between the various items of evidence; because as each section of piping is laid, it is covered in, and what is found one day is unavailable for study, except perhaps for a few hours. Since Ambleside camp is unexcavated, it is especially important to record any finds which may be made, and in the following notes I will attempt to deal as concisely and as intelligibly as is possible with the very "scrappy" evidences which came to light.

The Ambleside camp is placed right at the head of Windermere on low, almost floodable land. Immediately to the north of the camp is some rocky, hummocky ground, but beyond, in the same direction, the ground is again low and alluvial; while on the east we find rising ground, which, however, is separated from the camp itself by about 200 feet of low ground. About 200 yards from the western front of the camp, the river Rothay runs into Windermere, but there is good reason to believe that in former times the stream passed quite close to the camp.

The castrum was, therefore, probably in Roman times very well protected by marsh and the river. At the present time Borrans Road, the site of the present finds, approaches the camp from the east, and after almost touching the north-east corner bends north, and after making a fairly straight course for about 400 yards turns west to Rothay Bridge.

In laying the sewer a trench was cut 3 feet 8 inches wide along this road, and in this trench all the finds occurred. Between August 18th and September 3rd, 1900, the following things were noted:—At a point about 500 feet north of the north-east corner of the camp, and 50 to 60 feet south of the branch lane which leaves Borrans Road opposite a nursery garden, and runs towards the Rothay, there was found a line of biggish stones laid in a direction parallel with the modern wall above, and there were traceable oaken piles, which had been driven perpendicularly alongside the stones. Of these I was only able to examine some, and these were about four inches in diameter, and rounded and trimmed to a point.

At this place the men were working northwards, and for some 230 feet the trench continued to reveal evidences. Next to the upright posts was found what was evidently a regular "corduroy" road—that is, a causeway of oaken beams laid on what had, no doubt, been a bog. For 20 feet the beams lay at right angles to the modern road, parallel with each other; but, according to the testimony of the labourers, having an interval between each of about $2\frac{1}{2}$ feet. Some of them were measured, and found to have a diameter of 10 to 12 inches. Then for the following 65 feet they appeared to have been placed in contact with each other and without interval. As far as could be judged they were laid on regular marsh, and we traced a layer of packed metalling of earth and stones five to seven inches thick superimposed on the beams. Whether this metalling formed part of the original construction, or was



AMBLESIDE.

ROMAN BELLS.

SMYRNA.

Photo. by Mr. Herbert Bell.

TO FACE P. 33.

added as the beams decayed, is a difficult matter to decide. The ancient level of this road is four to five feet under that of the modern road.

Thirty-seven feet to the north of the branch lane the transverse beams came to an end, but at about the same level large stones, placed continuously, still occurred to a point 170 feet north of the lane, where they ceased to be observed; and at this place there seemed to have been a sort of pit or pool, for some pottery, an old piece of leather, and vegetable matter were turned out at a lower level than the old road surface—if, indeed, those stones marked the road surface, or did not rather form part of an embankment—a question which was difficult to decide.

This did not complete the first batch of discoveries, for close to an ejector chamber, 83 feet north of the lane, the workmen laid bare at a depth of six feet the pointed ends of stout oaken piles, the diameter of which had been about eight inches. Several of these were found with considerable intervals between each, but they were only noticed in the western wall of the trench.

After this there were no finds till October 20th, when the labourers were working at a section much closer to the north-east angle of the camp. At this point the trench was again parallel with the east wall of the Borrans Road, and eight feet distant from it.

The second batch of finds can be seen on my map at the point where the highway comes close to the corner of the camp. About 130 feet north of this north-east corner, the men, who were working south, came across the first of five pointed piles, which were placed at intervals over a space of 17 feet. At 41 feet from the first of these they found two beams lying transversely to the road, and alongside the first of these a bronze bell. At 45 feet further south, and opposite the camp corner, there was found 2 feet 8 inches deep a great deal of stonework, but nothing that could be identified as a pavement.

E

These finds were very confusing, and I quote here a letter of Mr. Herbert Bell of Ambleside, who had a better opportunity of observing than myself:—

They found here a great mass of black material, as though there had been a large fire (perhaps a forge for smelting). There were large stones (not squared) under this, and, I am told, a few pieces of wood under the stones.

It appears, however, that although various bits of smelted iron and even one piece of unsmelted iron ore were found here, the existence of this forge must remain questionable. The black material was very curious, and as it contained bits of charcoal, a portion was sent to Mr. F. W. Rudler, of the Jermyn Street Museum, for examination. That gentleman wrote that it could not be accepted as evidence of the site of a furnace, and, further, that it did not appear to have been smelted, but is simply a piece of ore, consisting of the hydrated oxides of iron and manganese, and similar, in fact, to "bog iron ore." Now, as "bog iron ore" is a natural lacustrine deposit, readily fusible and well adapted for casting, the question arises whether (seeing that charcoal and unsmelted ore were also found) the Romans did not find "bog iron" and utilize it at Windermere.

In all the remainder of the cutting along the Borrans Road the Roman pavement was not struck. Of the two batches of finds described, the most northerly was, I think, certainly the Roman road; but the second batch seems doubtful. Although with the information, it must be guesswork, it seems not unlikely that the line of the road was direct from Rothay Bridge to a point 150 to 170 feet from the centre of the east face of the castrum. This line cuts the northern group of finds, but passes nearly 100 feet east of the southern batch.

I venture to show on my map this and another line of road, both of course conjectural. One is that I have suggested, but the second which I make passing close to

the eastern rampart I do not consider likely, because something more definitely like a road should have been found where the deposit of ore occurred.

But reverting to the first-named conjectural line, it is plain that strategically it would be very good. On the west the camp was protected by the river, at that time almost certainly close to the vallum; on the south by the Lake, and by soft bogs and morasses on the north and north-east. The garrison would, therefore, have to look out for attacks from the east, and we may naturally assume that here they would place the prætorian gate. It is supposed that at least three different roads approached this camp—from Keswick, from Brougham, and from Ravenglass; but it seems reasonable to suppose that the three may have joined a short distance from the camp (perhaps at Rothay Bridge), in order that one (defensible) road only should traverse the protecting morasses—for, of course, more than one such road would form a distinct source of weakness.

But if there was one road only, an enemy approaching by the "corduroy" would be in a very bad position. They would be exposed to a tremendous flank fire from slingers, archers, and engines stationed on the rocky ground immediately north of the castrum; and, further, since their march would be on a causeway and over a quaking bog, it would not be possible for them to rush this position, and they would have to march straight on, exposing their right arms (the side without the shield) to the defenders' fire. But, of course, this is all surmise to be proved or disproved by later discoveries.

NOTES ON THE FINDS.

THE WOODEN PILES.—I have mentioned already the site of these.

In all the cases which I could examine *in situ* the ends only were preserved, and these were (as would be expected) pointed end downwards. But it is asserted, what seems to me most unlikely, that some had the pointed end upwards. In some a curious feature was observed—namely, that a rather large hole

had been drilled out alongside the point. The purpose of these piles is rather obscure. They may have been placed alongside the edge of the road, serving to retain in position the transverse beams of the "corduroy." Of those I measured, the largest were about eight inches by seven inches, but the majority about four to five inches in diameter.

POTTERY.—Rough red and dark-coloured ware in numerous fragments; also a good many pieces of the so-called "Samian" ware. Some of these were figured—one piece with the legs of a dancing figure, another with a hunting scene, and there were one or two undecipherable makers' names.

BRONZE BELL.—Hemispherical, with a five-sided loop on top for suspension; height, $1\frac{5}{8}$ inches; width across mouth, $2\frac{1}{8}$ inches. Inside, signs of brazing, where the ring or hook for the clapper was attached; and also iron rust, probably from the decay of the clapper itself. This bell is in excellent condition. The exact type has not occurred at Silchester, nor have I been able to find one exactly like it either at the British Museum, or at that at the Guildhall. In April this year, however, I purchased one at Smyrna almost identical except that it is larger (3 inches high), and the loop is a ring instead of being five-sided. (See Plate.)

SLING BULLET OR "GLANS" OF LEAD.—Found in Borrans Road, opposite the barn, and said to have been very deep down. Mr. Haverfield writes me that they seem rare in Britain. One turned up at Birdoswald, and 67 at Birrenswark. Our example weighs 674 grains, and it is so oxidised that I cannot tell if it has been inscribed; but there is now no appearance of lettering.*

COINS.—None were recovered, though one is said to have been found, which I doubt.

MISCELLANEOUS.—At the northernmost end of the finds—pottery, a piece of leather; birch, hazel, and ash twigs; another shapeless piece of lead, which may have served as a sling bullet; and rusted pieces of iron elsewhere.

* Since writing this, I have seen another *glans* found 80 to 100 feet east of the above. It is of coarser fabric, and weighs 873 grains; also a small Roman key of yellow bronze, found in the nursery garden, about eight feet south of this second *glans*. These two bullets seem to corroborate my theory of slingers upon the rocky points to defend the road.

Finally, I should say that the Society owes much to Mr. Herbert Bell, of Ambleside, for most assiduously watching the progress of the work. Since I reside five miles from the camp, I should most undoubtedly have missed much that was found if he had not most carefully kept me informed of each item of discovery; and, as a matter of fact, although this report appears under my name, many of the points noted are in reality the result of his observations.
