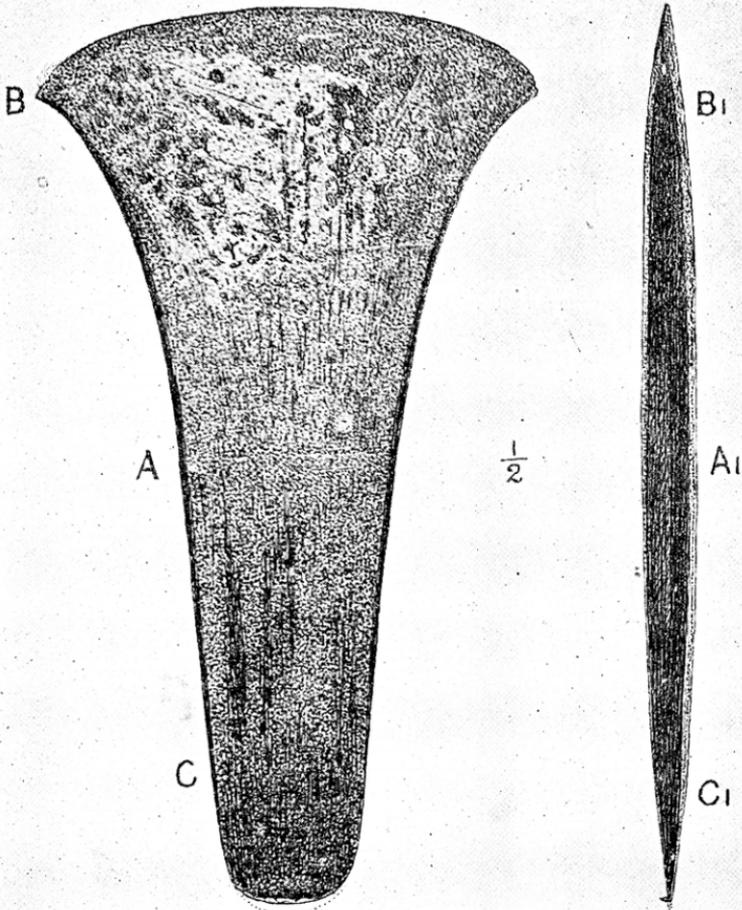


Nº 1



BRONZE CELT, GLEASTON CASTLE,  
LOW FURNESS, 1776.



SECTION AT A. FULL SIZE.

S. B. GAYTHORPE, PHOTO.

H. GAYTHORPE, DEL.

ART. XVI.—*Pre-historic Implements in Furness.* By HARPER GAYTHORPE, of Barrow-in-Furness.

*Read at Shap Wells, July 15th, 1897.*

I NOW bring forward several of the bronze and stone implements referred to at the end of my previous paper,\* namely: No. 1, bronze celt, found in the ruins of Gleaston Castle about A.D. 1776; Nos. 2 and 3, bronze spear-head and bronze sword, both found in a limestone quarry at Butts Beck, Dalton-in-Furness, A.D. 1874; No. 4, stone celt from Ulverston; No. 5, perforated stone axe-hammer, found under the floor of a stable at Oubas Cottage, Ulverston, A.D. 1868; No. 6, stone celt from the Manor Farm, Furness Abbey; No. 7, perforated stone axe-hammer, found in Rampside Churchyard about A.D. 1866; No. 8, perforated pebble, found in Rath Vale, Pennington, A.D. 1880.

No. 1. This bronze celt when exhibited by the Rev. M. Lort before the Society of Antiquaries, 23rd May, A.D. 1776, was described by him as "lately found by digging in the ruins of Gleaston Castle in the Lower Furness." "It had been put into his hands by Lord George Cavendish as a curiosity not unworthy of the notice of that Society." The drawing accompanying the description by Mr. Lort is not to scale, being  $1\frac{1}{8}$  inches in width, and  $4\frac{7}{8}$  inches in length. These figures would make the implement over 12 inches long, whereas he described it as "9 inches long." Both the broad and narrow ends had, at that time, a sharp edge. Mr. Lort's opinion of the celt was that it seemed intended for use in the hand only, for if a handle of any kind had been necessary the workman

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\* These *Transactions*, Vol. XIV, p. 442.

who

who made it could easily have formed it either with one or with a convenience to fasten one thereto. He further adds that "the antiquaries who have seen and considered these celts have differed much as to the uses for which they were designed," and that "the learned and ingenious Dr. Borlase in his *Antiquities of Cornwall* rejects Hearne's opinion of them having been Roman chisels for working of stone, and adopts Thoresby's of their having been the heads of offensive weapons, originally indeed of British invention and fabric, but afterwards improved and used by the provincial Romans as well as the Britons." In the discussion which followed, the celt was considered by Mr. Lort to have been a mason's chisel, and much better adapted to the chipping of stone than to any other use which had hitherto been found for it. As to the opinion of Dr. Borlase that these tools were doubtless kept in cases to preserve the keenness of the edge, Mr. Lort said "he had one of these cases into which a celt fitted exactly," but from the drawing of it which was published, it is quite clear that the case was simply the mould in which the celt had been cast.

The Bronze Age in Britain is divided by Sir John Evans into an early and a late stage, the first of which was a period of transition, when the use of bronze was superseding that of stone, and is characterised by the presence of daggers and plain wedge-shaped axes originally modelled from a prototype in stone. Of this latter kind is No. 1, described by Sir John Evans as belonging to the class called "flat celts," "which was with the bronze dagger the principal weapon for close combat introduced by the bronze folk into Britain, who formed with the forest tribes the basis of the population in the early Bronze Age."

"A very large number of flat celts of the simplest form have been found in Ireland, where native copper and copper ore are plentiful, and they are comparatively more abundant

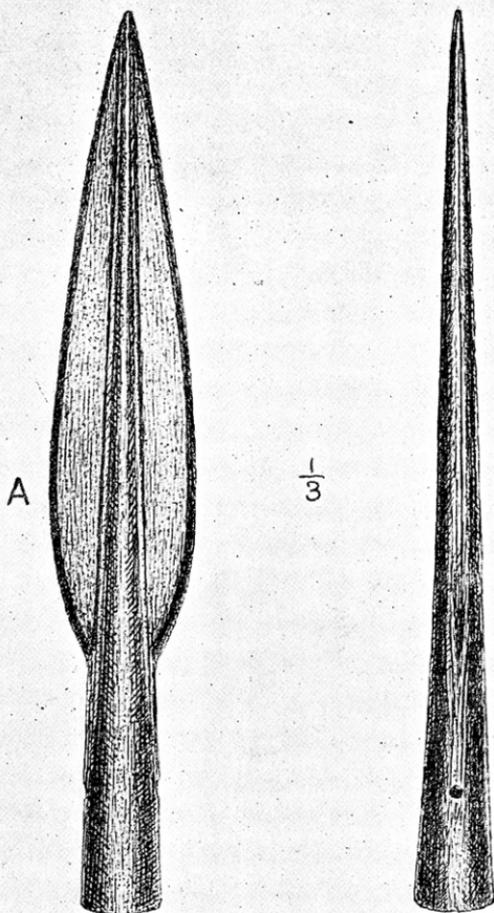
abundant in Scotland than in England or Wales." This specimen is very similar to one which is said to have been found at Drumlanrig in Dumfriesshire. It seems most probable that celts of this type would be taken from Ireland to Scotland by the Scots and be used by them as weapons of war in the early centuries of our era; and this implement may thus have been brought from Scotland and left at Gleaston. The length of this celt is  $8\frac{5}{8}$  inches, and with the part now hammered over at the narrow end (which appears to have been done during recent years or since Mr. Lort described it)  $8\frac{3}{4}$  inches. The width of the celt at **C**, a point  $1\frac{1}{4}$  inches from the narrow end, is  $1\frac{1}{2}$  inches, the width at **A**, half-way between the wide and narrow ends,  $2\frac{7}{8}$  inches. The width at **B**, across the widest part at the top, is  $4\frac{1}{2}$  inches,—this has doubtless been 5 inches originally, as the curved portion of the outline on the left side has corroded away. In referring to the left side the portion bent over at the narrow end is towards the spectator. The thickness of the celt at **A**, is  $\frac{3}{4}$  of an inch, and it tapers gradually to each end. At a point one inch from either end, opposite **B**, it is  $\frac{3}{8}$  of an inch thick, and at **C**, it is  $\frac{1}{4}$  of an inch. Where the patina has been scraped away the bronze is lighter in tint than the present gold coinage, but very much darker than ordinary rolled brass used by engravers, and where it has not been removed on the face now referred to it is of a shaded olive-green or citron colour, but on the opposite face it approaches a dark purple tint, with patches of dark green, the surface on both faces being more or less corroded, the latter consisting of small pits, in some places  $\frac{1}{4}$  of an inch deep, showing the verdigris, and in other places a bronze-coloured oxide. The patina on the faces of the celt has been roughly scratched, apparently since it was found, but it is devoid of ornament. The cutting edge has been sharpened and there is a ridge, just perceptible to sight and touch, about  $\frac{5}{16}$  of an inch from it, where it

has

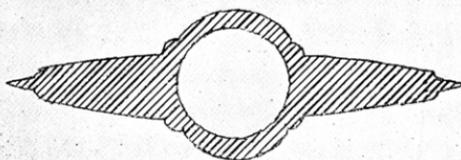
has been ground or polished. Except on the lower face where the patina has not been removed, the sides of the cutting edge are now corroded. The lower face of the celt is flatter than the upper, the fulness on the lower face being greatest in the middle of the stem and about  $3\frac{1}{4}$  inches from the bottom, while on the upper face the most noticeable fulness is in the middle of the stem—the thickest part of the celt—about  $4\frac{1}{2}$  or 5 inches from the bottom. The sides present two longitudinal facets at an angle of 35 degrees with each other, there are no cable marks, but in making these facets the margin of the top and bottom faces of the celt where it is usual to find a flange, has not been raised,—on the contrary, there are no flanges, but a perceptible hollow about  $\frac{1}{8}$  of an inch deep extends from near the edges one inch from the bottom of each face to the ridge at the top. The side edges of the celt are bevelled from the centre, the ridge in the centre projecting beyond the sides a little over  $\frac{1}{8}$  of an inch as shown in the full size section, and extending from the bottom of the stem throughout the whole length of the curved edge. The weight is 2 lbs.  $5\frac{1}{4}$  ounces, and the present owner is Victor C. W. Cavendish, Esq., M.P., Holker Hall, Cark-in-Cartmel, Lancashire.

No. 2. This very fine specimen of a leaf-shaped bronze spear-head was found in a limestone quarry at Butts Beck, Dalton-in-Furness, in 1874. It is  $13\frac{1}{4}$  inches long,  $2\frac{5}{8}$  inches wide, front view, and  $\frac{11}{8}$  of an inch wide, side view, as shown in the full size section at **A**, 6 inches from the handle end. The socketed end is not quite round, the diameter across being  $1\frac{5}{8}$  inches front view, and  $1\frac{1}{4}$  inches side view, the thickness of the metal at the outside end of the socket being  $\frac{1}{8}$  to  $\frac{1}{2}$  of an inch. The weight is 1 lb. 1 ounce. The surface of the spear-head is finely granulated, apparently by oxidation, and is covered with a thin bronze-green patina. It is in perfect preservation except for a small notch about 1 inch from the point. This has been

N<sup>o</sup> 2.



BRONZE SPEAR HEAD, BUTTS BECK,  
DALTON-IN-FURNESS, 1874.

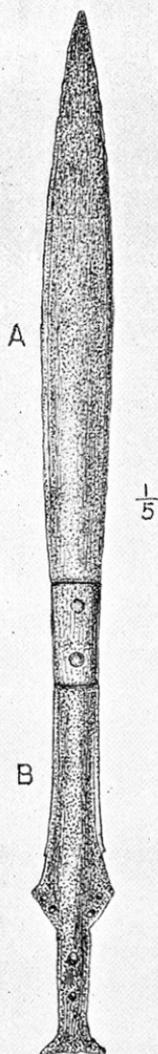


SECTION AT A. FULL SIZE.

S. B. GAYTHORPE, PHOTO.

H. GAYTHORPE, DEL.

Nº 3.



BRONZE SWORD,  
BUTTS BECK, DALTON-IN-FURNESS, 1874.



SECTIONS. FULL SIZE.

S.B. GAYTHORPE, PHOTO.

H. GAYTHORPE, DEL.

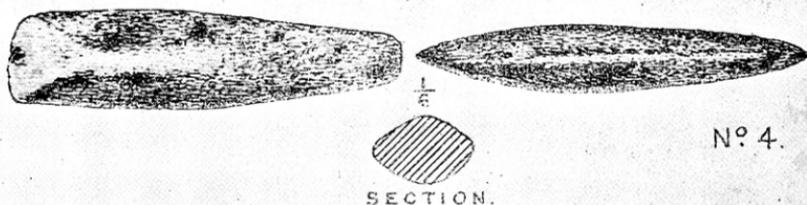
been made with some sharp instrument. The metal, though hard, is tough enough to bend over, leaving a sharp V-shaped projection. In shape this spear-head closely resembles No. 381, found at Heathery Burn Cave, Durham, figured on page 312 in *Ancient Bronze Implements*, the blade being continued as a slight narrow projection along the socket as fat as the rivet hole, the latter being  $\frac{3}{8}$  of an inch in diameter. On both sides under the rivet hole are scratches or marks made possibly when the head of the rivet was finished. At the bottom of the mouldings along the centre and edges of the spear-head the sand marks still remain, but in other respects the surface seems to have originally been smoothed or polished. This type of spear-head is similar to some of those from Ireland now in the British Museum, and it may be of Irish manufacture. The present owner of the spear-head is Edward Wadham, Esq., J.P., Millwood, Dalton-in-Furness.

No. 3. This leaf-shaped bronze sword was also found in a quarry at Butts Beck, Dalton-in-Furness, in 1874. It is  $24\frac{7}{8}$  inches long, and the blade is  $1\frac{1}{4}$  inches broad in its broadest part, as shown in the section at **A**, though lower down the blade, as shown in the other section at **B**, it is only  $1\frac{3}{8}$  inches broad, while at the top of the hilt it is 2 inches. The thickness of the blade at **A** is  $\frac{1}{4}$  of an inch, and at **B**  $\frac{1}{3}$  of an inch, and is rather less than  $\frac{7}{8}$  of an inch immediately below the modern copper fish-plates, which, since its discovery in 1874, have been fixed on the blade where it was broken, with two iron rivets. The two sections show the shape of the blade, which has a hollow fluting running close to and parallel to its edges, similar to No. 352, from Brechin, figured on page 288 in *Ancient Bronze Implements*, by Sir John Evans, and extending from near the hilt to within 11 inches from the point of the blade, where it is bevelled,—possibly through being sharpened. The thickest part of the blade is in the centre. The edge of the fluted parts where not worn, is very

very sharp. The blade has originally been longer and is very much corroded at the point, the remaining part of the blade below the repaired joint being fairly smooth and less corroded. The dark green patina where the blade is smooth shows it has been finely polished. The weight of the sword is 1 lb. 9 ozs. Comparing this sword with specimens in the British Museum, it closely resembles those of Irish manufacture. The hilt has been attached by bronze rivets, nearly  $\frac{1}{8}$  of an inch thick, passing through six almost round holes, which appear to have been produced in the casting. A hollow about  $\frac{1}{8}$  of an inch deep on each side between the two holes in the tang, suggests the idea of an additional hole, but this would have weakened the handle. The hilt plate or tang expands into a kind of fish-tail termination similar to figure 345 from Wetheringsett, page 283, *Ancient Bronze Implements*, which was probably inclosed in a pommel-like end formed by the plates of horn, or other material, of which the hilt was made. Towards the top of the hilt two of the bronze rivets remain in the holes, fixed in position and bent a little by being rivetted. Following the tops of the heads of the rivets which are bevelled, and connecting each with a curved line, this, when produced, gives the outline of an oval-shaped handle at this point  $1\frac{5}{8}$  inches wide and  $\frac{3}{4}$  of an inch thick. Lower down, towards the middle of the hilt, it would most probably swell out to  $1\frac{1}{4}$  or  $1\frac{5}{8}$  inches in the transverse diameter. The present owner of the sword is Edward Wadham, Esq., J.P., Millwood, Dalton-in-Furness.

No. 4. This stone celt was found near Ulverston. It is a very hard and compact clay slate. Where the shell-shaped flakes have been recently broken off the colour of the stone is dark blueish-grey, but where they have been broken apparently when the celt was made the colour is greyish-green. The surface is spotted with brown or dark bronze colour, and these spots or patches are seen to extend

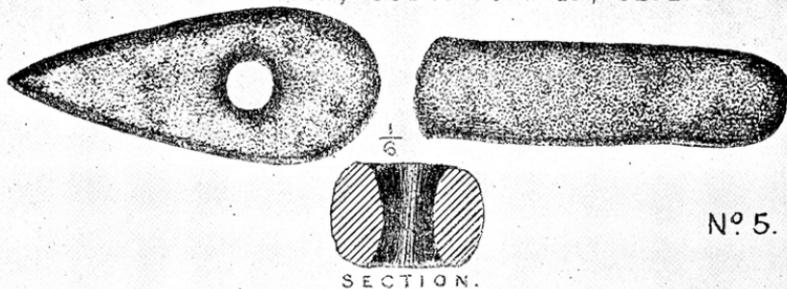
STONE CELT, ULVERSTON.



Nº 4.

SECTION.

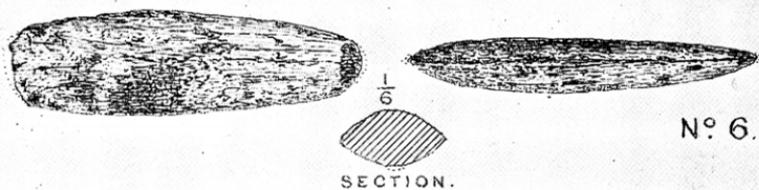
STONE AXE-HAMMER, OUBAS COTTAGE, ULVERSTON.



Nº 5.

SECTION.

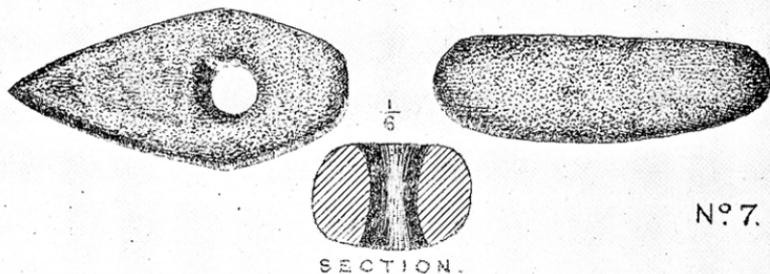
STONE CELT, MANOR FARM, FURNESS ABBEY.



Nº 6.

SECTION.

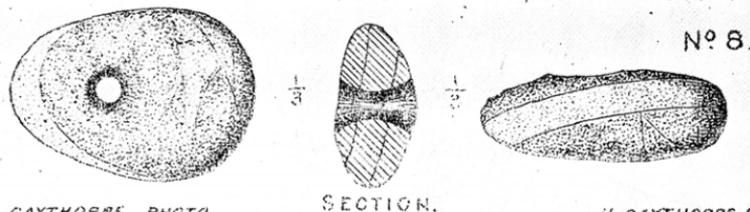
STONE AXE-HAMMER, RAMPSIDE CHURCHYARD.



Nº 7.

SECTION.

PERFORATED PEBBLE, RATH VALE, PENNINGTON.



Nº 8.

SECTION.

S. B. GAYTHORPE, PHOTO.

H. GAYTHORPE, DEL.

extend into the stone where the sides are bevelled away. The length over all is  $11\frac{1}{8}$  inches, greatest width  $2\frac{3}{8}$  inches, width in the centre  $2\frac{3}{4}$  inches, width towards the narrow end  $1\frac{7}{8}$  inches; the thickness varies from  $1\frac{1}{4}$  inches near the narrow end to  $1\frac{1}{8}$  inches in the middle, and  $1\frac{1}{2}$  inches at the wide end. The edges of the celt have been ground away to a width of  $\frac{1}{4}$  to  $\frac{5}{8}$  of an inch, and on one side to a width of  $\frac{3}{8}$  of an inch. The cutting edge is sharp at the wide end, rounded on the lower face, and flat on the upper, which clearly shows the celt to have been used as a chisel or gouge. It has been polished almost all over the surface, and where polished is now quite smooth and feels like glass. Its weight is 2 lbs.  $15\frac{1}{2}$  ozs. The present owner is Mr. Anthony W. Wilson, 20, Westcott Street, Hull.

No. 5. This perforated stone axe-hammer was found under the floor of a stable paved with round cobble stones, at Oubas Cottage, Ulverston, in 1868. Its most noticeable features are the outward curves at the axe-end both at top and bottom. These appear to embody the idea of the simple curved cutting edge which afterwards developed into the shape shown in the flat celt, No. 1, of the Bronze Period. The deep groove or hollow extending outwards from the perforation towards either end of the stone both at top and bottom, but more especially towards the axe end is also noticeable, and seems difficult to account for unless to prevent wearing away by friction of anything attached thereto. The stone is dark greenish-grey in colour similar to those of micaceous sandstone found at Fenwick, near Swinside, but coarser in the grain. The surface is covered with shining specks of mica, and also inside the perforation; the latter being smooth, but the coarse gritty nature of the stone, while very hard, would not admit of it being polished. This is plainly seen at the axe end of the stone where it is quite smooth, though the remainder of the surface is pitted with small holes as  
though

though made by a pick. It shows no signs of stratification, but one side of the hammer end slopes away, that being evidently its original shape. The length of the stone is  $10\frac{5}{8}$  inches, width  $4\frac{1}{4}$  inches, thickness at each end  $2\frac{1}{8}$  inches, and at a point 4 inches from the axe end,  $2\frac{7}{8}$  inches. Measuring from side to side, the hole is 2 inches in diameter on the surface; but the groove referred to before extends the length of the hole from end to end at the top to  $3\frac{3}{4}$  inches and at the bottom to 4 inches, while it tapers towards the centre of the stone, where it is  $1\frac{3}{8}$  inches the broad way and  $1\frac{1}{4}$  inches the long way. The axe end is sharpened to an angle of 52 degrees towards the widest part of the stone, while each end forms a segment of a circle 4 inches in diameter. The stone is now perfect except as described, and for five small flakes at the axe end. It weighs 6 lbs. 11 ozs., and is now in the possession of Mr. Anthony W. Wilson, 20, Westcott Street, Hull.

No. 6. The exact place where this stone celt was found is not known, but it was on the premises at the Manor Farm, Furness Abbey, in 1859, and presumably was found near that place. It is a very hard and compact clay slate, greenish-blue in colour where flakes have been recently broken off. The surface on one face still shows the long facets where it has been ground and shaped. It has been for some time in or about lime and iron, and in places the surface has acquired a whitish tint and in others a rusty one, the lime being easily removed. The length over all is  $8\frac{7}{8}$  inches, the greatest width  $2\frac{1}{8}$  inches, the thickness in the centre  $1\frac{1}{2}$  inches. The surface is pitted with small holes, about  $\frac{3}{4}$  of an inch in diameter and  $\frac{1}{2}$  of an inch deep, mainly on the upper face. The lower face has been flattened and used as a sharpening stone, for which, on account of its extreme hardness, it is ill adapted. The sides have been ground away to a sharp edge, and except for one large flake are in fairly perfect condition, but the  
ends

ends have been broken away, leaving shell-like fractures. Its weight is 1 lb. 14 ozs. The present owner is Mr. James Tyson, The Manor Farm, Furness Abbey.

No. 7. This perforated stone axe-hammer of porphyritic lava was found in Rampside Churchyard amongst a heap of bones in digging a grave about A.D. 1866. The frequent finding of bones when digging graves at Rampside churchyard pre-supposes an ancient burial ground, but whether in consequence of a battle, as tradition states, or of a former large population, is mere conjecture. Two other stone implements, one a celt, about  $12\frac{1}{2}$  inches long, were found while ploughing a field at Moorhead, near Roosecote, about the same time. These were sold at Wigton, Cumberland, in January, 1895, after the demise of Mr. Ross, who had farmed the land at Moorhead. This axe-hammer has apparently at one time been polished on the surface, but except for the perforation and about an inch at each side of the axe end, the whole of the hammer end, and on the under side it is pitted with marks as though made by a pick. It is of a greenish-grey colour, with minute specks of white quartz on the surface, more plainly noticeable at the hammer end, and is streaked more or less with brownish red patches which run through the stone, being visible inside the perforation. The latter has evidently been made from the top and bottom of the implement, as there are circular marks inside showing that a stone or other object had been used to finish it off smoothly. There are no marks of stratification. The upper side of the stone is slightly curved, the lower side almost flat. The axe end is sharpened to an angle of about 75 degrees towards the widest part of the stone, and forms a segment of a circle  $3\frac{1}{8}$  inches in diameter, while at the hammer end it is almost flat for a space of 2 inches in diameter, enabling the stone to stand upright. The shape at the hammer end suggests that the implement has been reduced from a larger stone. Its  
length

length over all is  $9\frac{3}{4}$  inches, width  $4\frac{0}{8}$  inches, thickness  $3\frac{1}{4}$  inches. The hole is 2 inches in diameter on the surface, both top and bottom, and tapers towards the centre, where it is  $1\frac{5}{8}$  inches in diameter the long way of the stone and  $1\frac{7}{8}$  inches the broad way. It weighs 7 lbs., and is now in the possession of Mrs. H. A. Hannay, 16, Grafton Road, Bedford.

No. 8. This perforated pebble, formed out of a fine grit or sedimentary rock, probably from a band in the coal measure sandstones, was found about August, 1880, on the moor at Rath Vale, Pennington. At that time several sprigs of heather eight or ten inches long were growing through the hole. In a front view the stone is egg-shaped, of a light brown colour, and where weathered or water-worn shows small black specks. It has chocolate coloured veins extending over the surface to the band of silica nearly  $\frac{1}{2}$  an inch thick running obliquely through the stone; this band being almost white at the top but brown at the bottom, and full of brilliant particles. The pebble does not appear to have been used as a hammer as the ends are not worn, and it is smaller in size than some of the quartzite pebbles referred to as hammers by Sir John Evans, though similar in front view to Fig. 152 on page 225 in *Ancient Stone Implements*, 2nd Edition, found at Hailgard Farm, Birdoswald, Cumberland. The perforation is too small for a wooden handle, but the stone would have been a formidable weapon with a thong of hide fixed to it and knotted at the end. The hole is towards the narrow end of the stone and almost perfectly round,  $\frac{3}{4}$  of an inch in diameter on the surface of the upper and lower faces, and  $\frac{1}{8}$  of an inch in diameter in the centre, being quite smooth and regularly tapered, except where the band of silica is pierced. There the hole is oblique, having evidently been perforated from both sides. The stone is oval in shape,  $3\frac{3}{8}$  inches long,  $2\frac{7}{8}$  inches wide,  $1\frac{1}{4}$  inches thick, and

and tapers slightly in form both front and side views. On the lower face near the top are two flat places suggestive of smaller pebbles having at some time been attached thereto. Its weight is 7 ozs. The present owner is James Park, Esq., Lightburne, Ulverston.

I cannot conclude this paper without expressing my obligation to those who have so kindly lent me the various implements described therein, and figured in the engravings illustrating it, which are from photographs by my son, Sidney B. Gaythorpe.

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ART. XVII.—*Report of the Cumberland Excavation Committee, 1897.* By F. HAVERFIELD, M.A., F.S.A.\*

*Communicated at Penrith, September 23, 1897.*

THE excavations which were carried on during last August under the auspices of the Cumberland and Westmorland Antiquarian and Archæological Society had two principal objects, to trace the Vallum at Birdoswald and Gilsland, and to trace the Turf Wall at Birdoswald: one or two of the roads near the Wall were also examined. The results obtained are once more of real importance, and quite equal in value the results obtained in 1895 and 1896, of which, indeed, they are the direct continuations. It may be convenient to summarize them here.

1. In 1896 we found that the Vallum at Birdoswald deviated from its normal straight line to pass round the south face of the fort. This year we traced the Vallum further and found that on the other side of the fort it swept back again into its normal line. This completes the proof that the deviation of the Vallum was due to the presence of a fort on the spot. Similar evidence was obtained at Carrawburgh, Halton, and Rudchester, in Northumberland: at each, the Vallum seems to diverge to avoid the site of a fort. We have thus confirmed and extended the results obtained in 1896, and obtained valuable testimony to the age of the earth-work.

2. The Turf Wall was traced in 1895 and 1896 from Appletree to within eighty yards of the west side of the fort at Birdoswald. This year we found that it passed through the middle of the fort and continued its course

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\* For the Reports of 1894-6, see these *Transactions*, xiii. 453, xiv. 185, 413.

eastwards.