

III.

ACCOUNT OF THE EXCAVATIONS ON TRAPRAIN LAW DURING THE SUMMER OF 1921. BY JAMES E. CREE, F.S.A. SCOT., AND ALEXANDER O. CURLE, F.S.A. SCOT.

This year work was commenced on the Law on Monday, 9th May. The first ground selected for excavation was the unexplored portion of section H, which was left untouched in 1919. It amounted to an area 25 feet from north to south by 50 feet from east to west, or, in other words, a full half-section. For identification purposes this half-section has been called H^a. The north line thus corresponds with, and is an extension of, the north line of section H.

Continuing towards the north, a complete section, 50 feet square, marked M, was measured out. This adjoined on the east section L, which was excavated last year. Further ground to the north, embracing a complete section and a half, was also explored this season, but in view of the deductions made from the excavation of sections H^a and M we shall defer the description of the latter till later. Here it may be well to state that the total area excavated during the summer amounted to 7500 square feet, which, although considerably less than last year, is similar to the ground turned over in 1919.

At an early stage of this year's work it was recognised that our old theory, which surmised four levels of occupation, must be greatly modified. This theory became untenable when it was recognised that the occupation of the site, instead of being referable to four more or less definite periods, dating from the end of the first or beginning of the second century, and terminating at the beginning of the fifth century, was actually a continuous occupation of the ground under review; and our work this year has demonstrated that Traprain Law was in reality a walled town or *oppidum*, at least during the period mentioned. This condition, it will be seen, does away with the question of different levels; new structures simply having been built from time to time on the ruins of previous habitations. Another factor was observed which must be taken into account, viz. the levelling-up of ground. It was noticed that this process had occasionally taken place; the higher ground having been dug out to the required depth, and the soil removed and taken to raise ground at a lower level. Then again, it seems probable that fresh soil had been spread over surfaces which had become insanitary, a practice followed in some parts of America at the present day; and therefore we

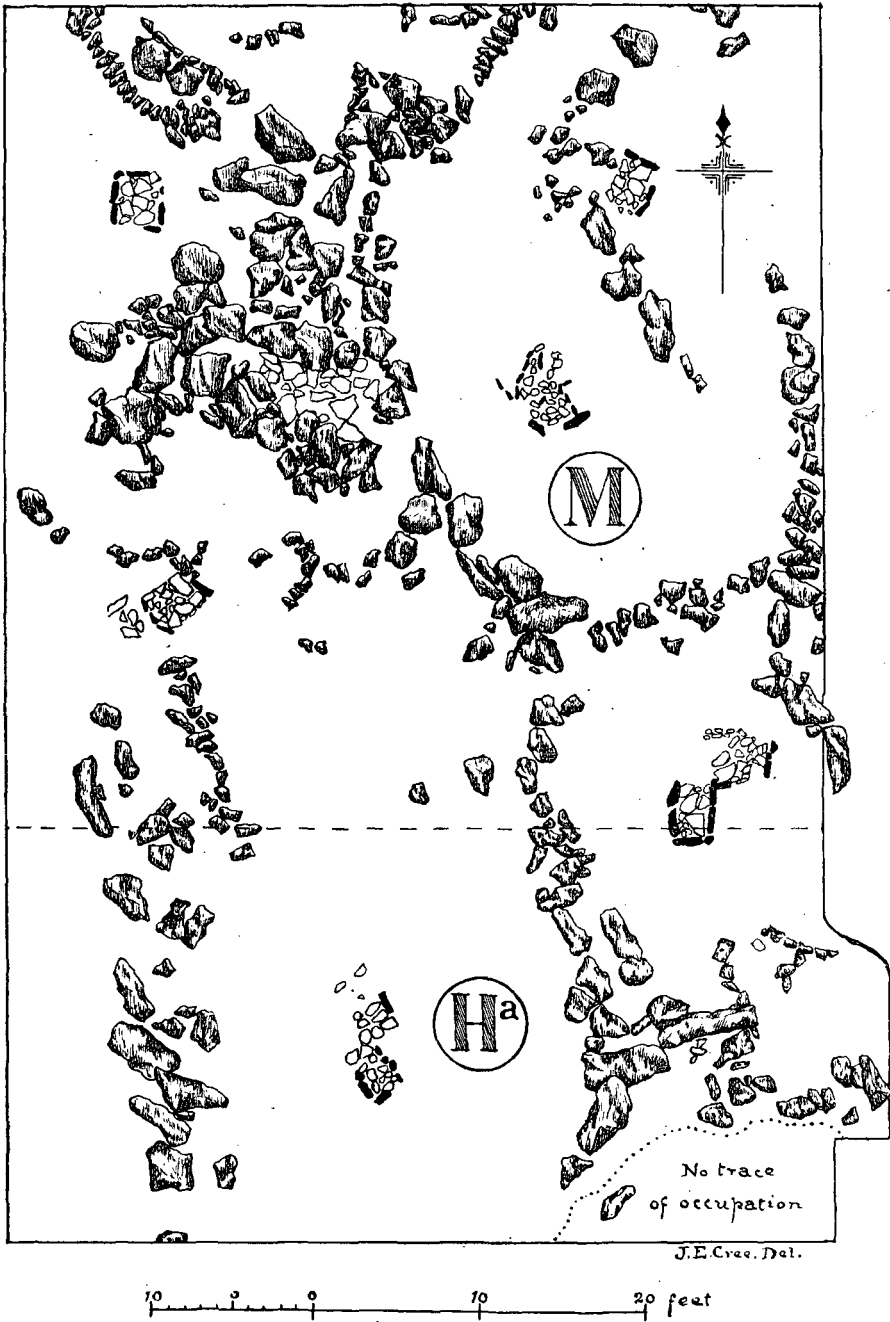


Fig. 1. Plan of Foundations on the highest level (No. 1) of sections H^a and M.

found that the old system of removing the ground in horizontal layers by no means yielded reliable results. These circumstances thus account for objects belonging to a very much earlier period having been brought to light on later horizons, and we have now some explanation of the apparent mixing of relics in the excavations of previous years. There is nevertheless a certain stratigraphical value in removing the ground in levels, and thus the old system has not only been adhered to, but increased so as to show approximately in plan the development of the site under continuous occupation. We shall therefore describe the so-called levels under the conditions above mentioned, and commence with sections H^a and M.

As usual, the top level was encountered at a depth of about 14 inches below the turf (fig. 1). A line of large rough stones was found commencing at the south line of section H^a and extending in a northerly direction, running parallel to the west section line for a total distance of about 32 feet. Not far from the centre of H^a, a hearth and the remains of another were uncovered. The more complete one was orientated north-west and south-east, was paved with slabs of sandstone and the igneous stone of the hill, and had kerbstones in position on three sides—these, as heretofore, being indicated in black on plan. To the east of this hearth another alignment of large stones running into section M was found, and east of this again a number of large stones were noticed suggesting an arc of a circle. This seemed to indicate an early dwelling, the southern and eastern portions of which appeared to have been dug out from the higher ground. Two small settings of stones converged towards the north-west, where their terminals were 2 feet apart; and this appeared to have been the entrance. The floor of this dwelling was unpaved, and here was found a small stone axe (fig. 9, No. 1), which will be described later.

Advancing towards the north, a large, well-built hearth was discovered, lying mostly in section M. It was orientated due north and south, the open end being towards the north. Kerbstones enclosed it on the remaining three sides. A ruinous hearth adjoined this on the north-east, and, as will be seen on the plan, these hearths, together with the one described earlier, were situated within what appeared to have been circular or oval enclosures of rough stones.

Proceeding still further to the north, another and larger enclosure, also formed of rough stones, was brought to light. Occupying a central position in this were the remains of two hearths. Outside of this enclosure, and lying in an angle formed by the stones lining the south-east side of a northern passage and the stones forming the north-east wall of the oval, lay another hearth. This was of the usual rectangular

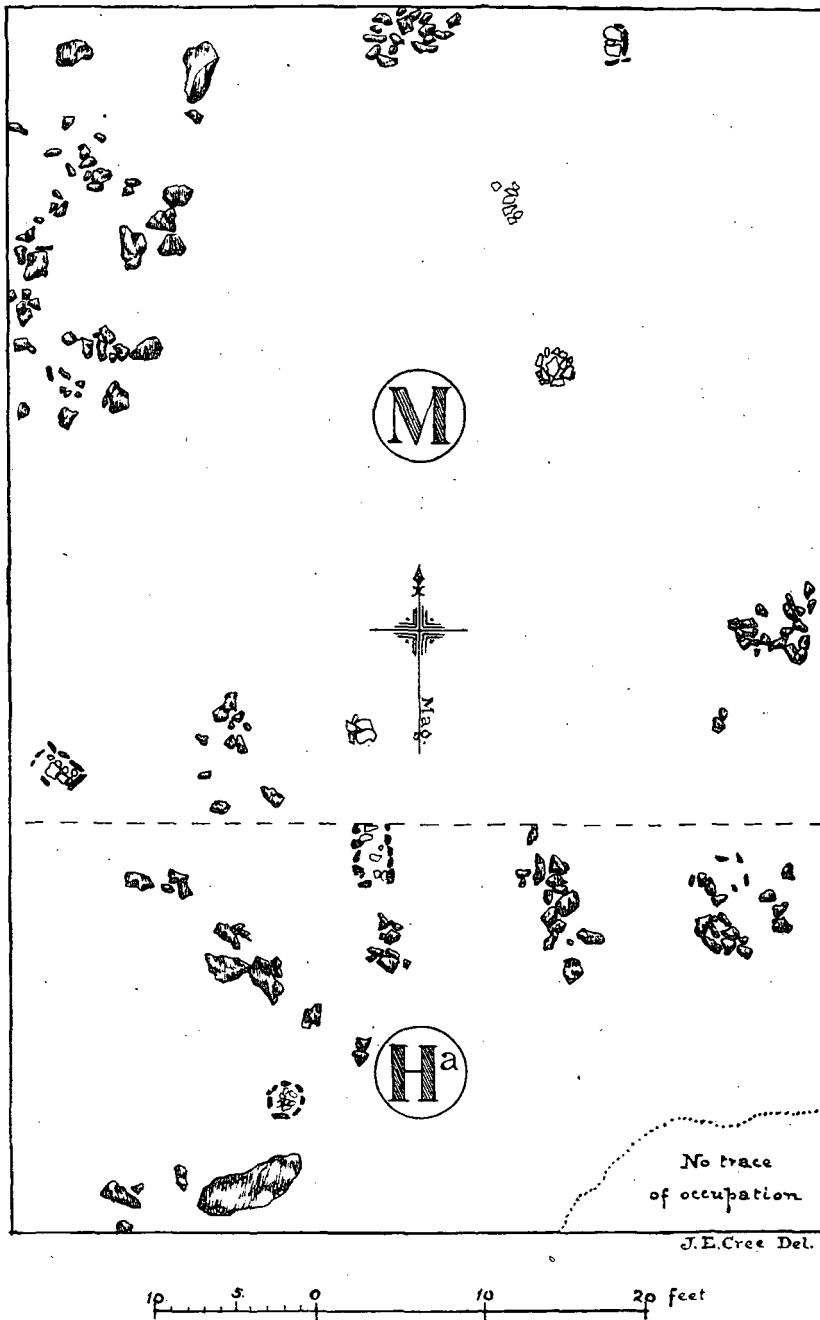


Fig. 2. Plan of Foundations on level 1^a of sections H^a and M.

type, and only four kerbstones remained: two on the northern end and two on the eastern side. The open end in this case seemed to have been towards the south. Entrances to the enclosure were found both on the north and east, and these were roughly about 4 feet wide. Another small break in the oval of about 14 inches in width appeared on the west side, and this seemed to lead directly into a small dwelling, while a passage-way towards the west is also suggested. The dwelling in question was situated entirely outside the enclosure. It was surrounded by large hill stones and paved with flat slabs. A mass of large stones devoid of any definite formation lay to the north and west. Slightly to the south of this wall, and forming the south side of the passage already referred to, another rectangular hearth was found, having kerbstones on two sides, and a few flat slabs of stone lay close to it on the south-west side. Still another hearth, paved, kerbed, and of similar shape, was noticed towards the north-west. This was orientated north and south, and only a portion of it was open towards the south. To the north of this hearth was discovered the foundation of what was possibly a turf wall, and this was 5 feet in width. The stones forming the south-west side of the wall were of moderate size and were laid in a slight curve, while those on the opposite side were laid almost in line. To the east of this, another setting of stones was found, placed in a north-easterly direction and running into the yet unexplored section on the north.

Having completed the examination of the top level, the soil was removed to a depth of about 6 inches. Here a level was noticed which has been called 1^a (fig. 2). At the extreme south-east corner of the half-section H^a, a small piece of ground was exposed upon which no trace of occupation was noticed. About 16 feet from the west line and 7 feet from the south line a small circular hearth was uncovered. This was neatly paved with small flat stones and surrounded by kerbing. It measured roughly 20 inches in diameter, and is one of the smallest hearths so far brought to light. To the north-east of this and abutting on the north line was a rectangular hearth, which was fairly complete. It was orientated north and south, and the open end appears to have been towards the north. Towards the east line of the section a small enclosed space about 1 foot square was found, surrounded by rough stones. In the centre of this a fine bronze pin was revealed. The pin was found point down in the soil, and adhering to it by corrosion was an iron object. The pin will be described later. The position in which this pin was found is possibly one in which it was placed. Had it been casually dropped, the weight of the head would probably have caused it to assume either a horizontal position or a vertical one head down. The remaining structure of this half-section calls for no further comment.

Proceeding now into section M, a small rectangular hearth was discovered close to the south-west corner. This was paved in the usual manner, and, although somewhat ruinous, it seemed to have been completely enclosed by kerbstones. Its orientation was north-west and south-east. About 17 feet slightly to the north of east of this hearth a few paving-stones were noticed, and these may have been a portion of the floor of a dwelling which lay only 5 feet from the rectangular hearth above mentioned in section H^a. To the north-east of the centre of the section lay a circular hearth completely paved, but having only one kerbstone in position. To the north-east and close to the section line what appeared to have been a rectangular hearth was noticed. This, however, was in a very ruinous condition. The north-west angle of the section disclosed a number of rough stones, but their purpose was not evident.

Removing the soil to a further depth of 4 inches, another level was reached which has been called No. 2 (fig. 3).

The unoccupied portion at the south-east side of H^a extended from the south line across the whole of the section, and continued for a distance of about 17 feet into section M, forming a fairly large triangular area. Towards the west line a hearth of unusual shape was noticed situated within a clay area. In construction it was a pointed rectangle, neatly paved and enclosed with kerbstones. A space of about 10 inches was open at the north-west end, and its orientation was west-north-west by east-south-east. To the north of this, a number of rough stones set almost east and west were the only other structural remains noticed in H^a.

On section M an alignment of large stones extended from the south line of the section in a north-westerly direction to the centre. Here were discovered two paved areas. These were separated by two stones of considerable size, set on edge and placed as if in continuation of the line of stones referred to above. The paved area to the east of this assumed a roughly circular shape, and was about 6 feet in diameter. On the south-west side of this line of stones a very large paving was brought to light. It measured about 15 feet from north to south by 12 feet from east to west. Another and smaller paved area was also noticed on the west side of the alignment of stones and within a few feet of this paving. On the east side of the line of stones, and close to a large one, a small heap of whelk shells was discovered, and these may have had some relation to the paving just mentioned. The shells had the appearance of having been emptied out of some vessel, and it is worth noting that a similar heap of whelk shells was found last year close to a hearth in section K, on what was then designated

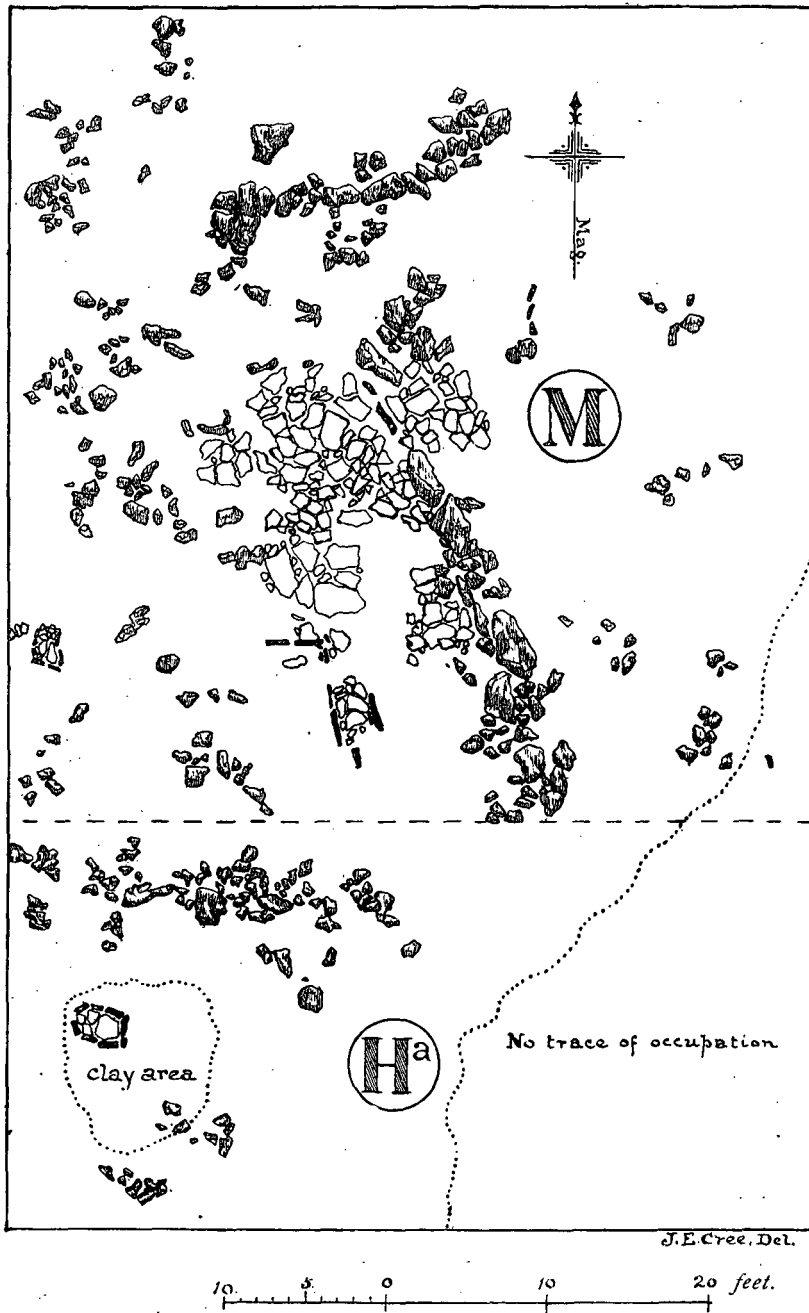


Fig. 3. Plan of Foundations on level 2 of sections H^a and M.

third level. To the south of the large pavement above described a rectangular hearth, whose orientation was north and south, was found in a more or less ruinous condition, and close to this had been another hearth, only discernible by the three kerbstones which remained.

Close to the west line of the section another small rectangular hearth was observed. It was orientated north and south, and the open end was towards the north.

About 10 feet from the paved areas already referred to, a number of large rough stones, having a slightly crescentic formation, lay towards the north. No other structure on this level seems worthy of particular notice.

Having now removed the soil from the second level, we found the third level (fig. 4) at a depth of 6 inches. The unoccupied area noticed on the level above now materially increased. It extended further towards the west in section H^a, and also towards the north in section M. The inhabited ground of H^a was thus restricted to about half the section. Little structure calls for special notice. Towards the centre of the section a small enclosure formed of rough stones, and paved with small flat stones, was found, but its purpose was not apparent. On the west line a small rectangular hearth was brought to light, its long axis being north-west and south-east, with the open end towards the south-east. No kerbstones remained on the north-east side.

Advancing now into section M, a large rectangular hearth was found about 10 feet from the south section line and 17 feet from the west section line. This was orientated north-east and south-west, and was open towards the north-east. Only one kerbstone remained on the south-east side. Almost adjoining this hearth on the south what appeared to have been a circular hearth was laid bare. The centre of this was occupied by one large flat stone, while two kerbstones bordered it on the east, and were all that remained of those which had probably surrounded it. About a foot to the east of these two hearths was a small paved area, which, as usual, is left unhatched on plan. Some 6 feet to the north of the rectangular hearth above mentioned a fragmentary hearth was found. It consisted of only one kerbstone and three paving-stones. The only other structure worth noting on this level was situated to the north-east of the last fragmentary hearth described. In this case five stones were set on edge, and will be seen in black on plan. On the east side one stone was set nearly north and south. At right angles to this two stones were set towards the west, and the structure was continued by two other stones which curved slightly towards the south-west. The purpose of this peculiar setting of stones was not apparent.

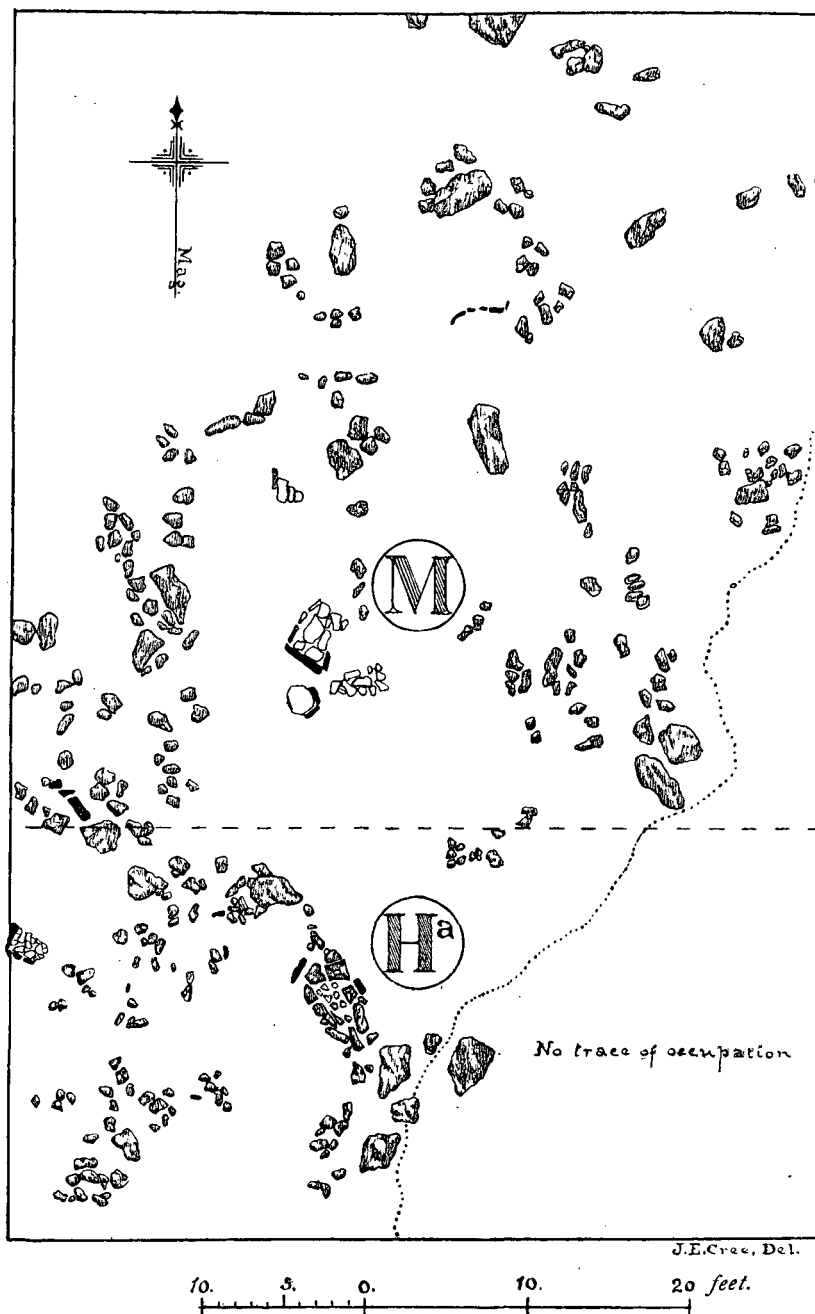


Fig. 4. Plan of Foundations on level 3 of sections H^a and M.

Below the third level another 6 inches of soil was removed, bringing us to the fourth level (fig. 5). Here the occupied area was still further restricted; the ground to the south and east as heretofore showing no trace of occupation. Towards the centre of the section paving was found, and adjoining this on the east side were a number of small rough stones placed so as to form an ovoid setting. Running diagonally through the section on the north-west side a number of rough stones suggesting an alignment were noticed, and close to these on the west side was found a small paved area consisting of five stones.

Proceeding into section M, a small triangular paved area was discovered in the angle formed by the south and west lines of the section. Three stones set on edge bordered this on the east, while adjoining it on the north are several rough stones. About 16 feet east of this on the section line a fragmentary hearth was found orientated north-east and south-west, the open end being apparently to the south-west. A few feet to the north-west of this hearth three flat paving-slabs were noticed, and adjoining these on the north-west and south-west were some rough stones, while outside of those on the south-west side two stones set on edge were noted. About 20 feet in a north-easterly direction a number of rough stones were found set in the form of the letter L; and still further to the east, bordering what was the unoccupied area, were a number of stones which suggested the foundation of a turf wall.

Five inches below this we came upon the fifth level (fig. 6). On this level the unoccupied area practically amounted to half the section, and this was also found to be the case in section M.

In section H^a a small ovoid hearth was discovered in the angle formed by the north and west lines of the section. It consisted of a few small flat stones laid in the centre, while three kerbstones were placed towards the west side. Small rough stones were, however, used to complete the border of the oval. From its general appearance, and by analogy to a hearth found on the sixth level, it is suggested that this hearth may have been an early one. A few feet to the south-east of this some paving-stones were noticed. About 9 feet to the north-east a hearth in fragmentary condition was found, and this extended into section M. It consisted of one very large kerbstone placed in a north-westerly and south-easterly direction, one kerbstone placed at right angles to the latter, and four paving-stones, two of which were of considerable size. A few feet to the north-east and in section M a large circular hearth was revealed, and the ground between the two hearths mentioned was found to consist of a layer of yellow clay about 2 inches in thickness. To the north and west of the circular hearth

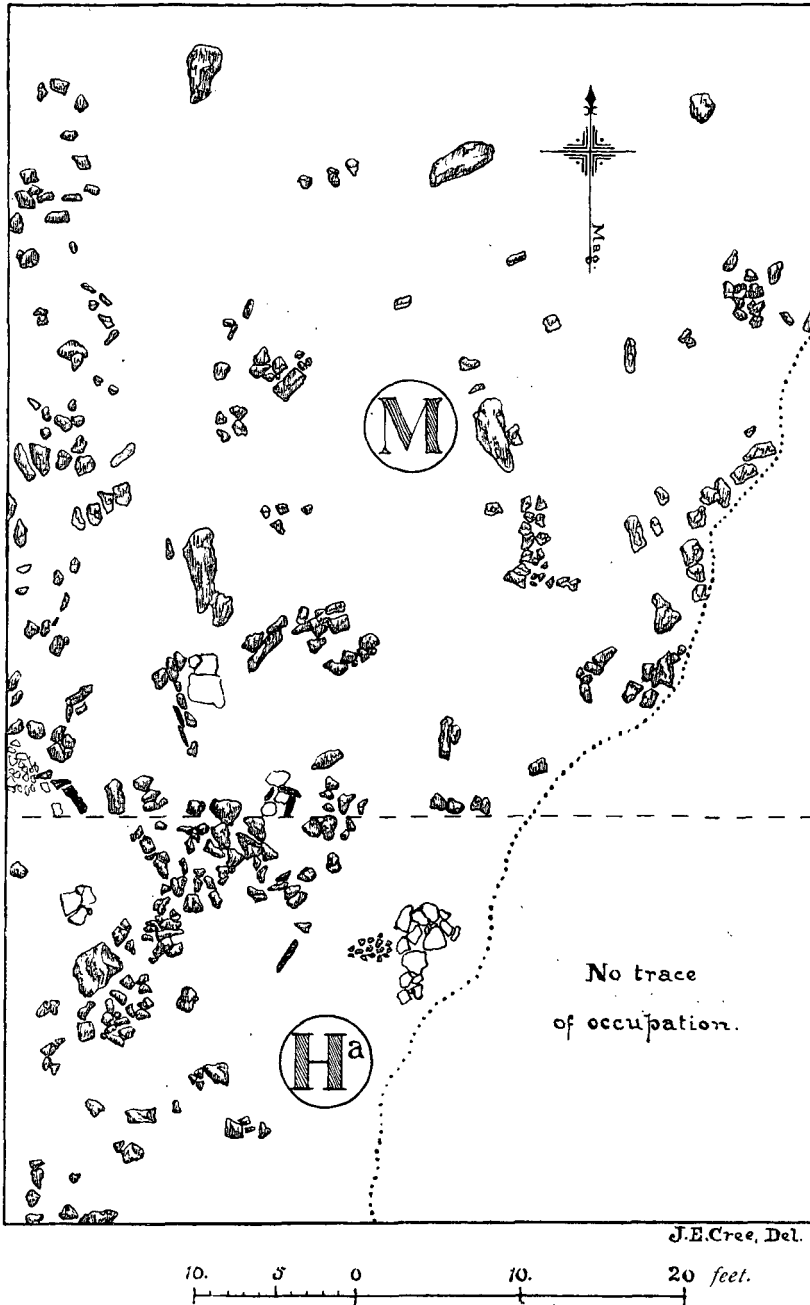


Fig. 5. Plan of Foundations on level 4 of sections H^a and M.

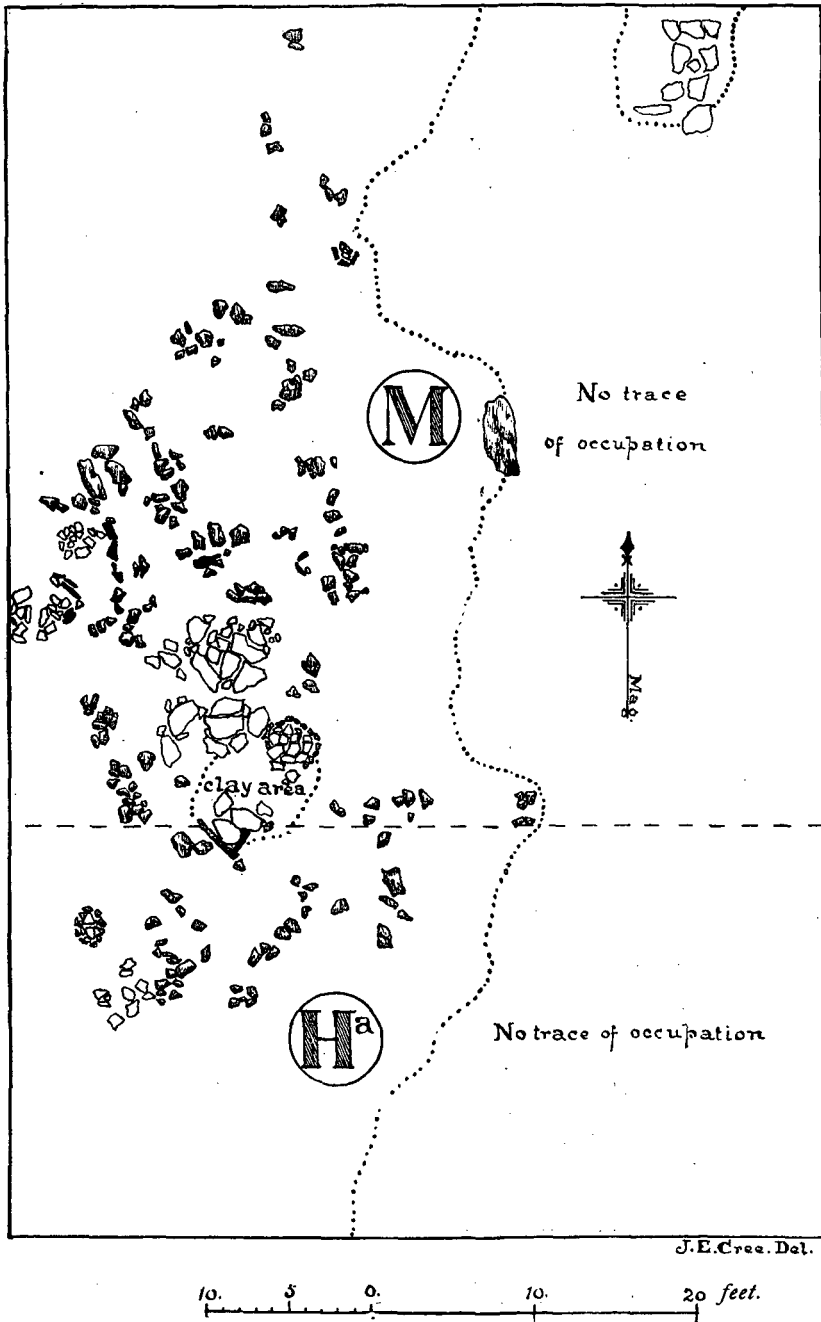


Fig. 6. Plan of Foundations on level 5 of sections H^a and M.

lay two paved areas. What appeared to be the remains of another hearth lay about 10 feet due north of the large circular hearth already mentioned. This, however, only consisted of two kerbstones set at right angles to one another and one small paving-stone. About 15 feet from the south-west corner of the section, and within 5 feet of the west line, lay the remains of another rectangular hearth, and a few feet from this in a north-easterly direction lay a small paving and a line consisting of four large stones set on edge. The remains of still another hearth of uncertain form was found about 20 feet to the north-east of these stones and close to the unoccupied area. The only other structural remains consisted of a small amount of paving, and this was found in a natural depression of the ground close to the north-east corner of the section.

The next level to be described has been called 5^a (fig. 7). Unfortunately, only a few inches of soil lay between this level and the one immediately above—so little, indeed, that the so-called level with regard to section H^a entirely escaped detection. We have thus no structure shown on plan; but when we proceed into section M a considerable amount of structure was recognised. The occupied zone amounted to less than half the section, and this lay entirely on the west side.

Near the south-west corner of the section a fragmentary hearth was noticed, together with two paving-stones. About 8 feet due north of this three stones set on edge were found, forming two sides of a triangle. The third side was open, but what purpose this structure served it is impossible to say. A few feet still further to the north-east a paved area was discovered, while still further to the north a larger and more irregularly-shaped paving was revealed formed of flat stones laid closely together. This measured about 10 feet 6 inches from north to south by 11 feet from east to west. On the south-east side of this, a line consisting of four stones set on edge, and followed towards the north by smaller stones laid horizontally, seemed to have been placed with some reference to the paving, but their object was not apparent. Several other large stones set on edge were also found at various points on this level, but their purpose could not be determined.

The last and earliest level—the sixth (fig. 8)—was found a few inches below the level above described; the total depth below the turf being 46 inches. The unoccupied area on section H^a was practically the same as on the fifth level. The occupied portion of the ground, however, instead of having only a small amount of structure, was in this case covered by a mass of stones most of which were definitely referable to a habitation of the site. The most interesting structural remains were situated about 15 feet from the south line of the section and 10 feet from the west line

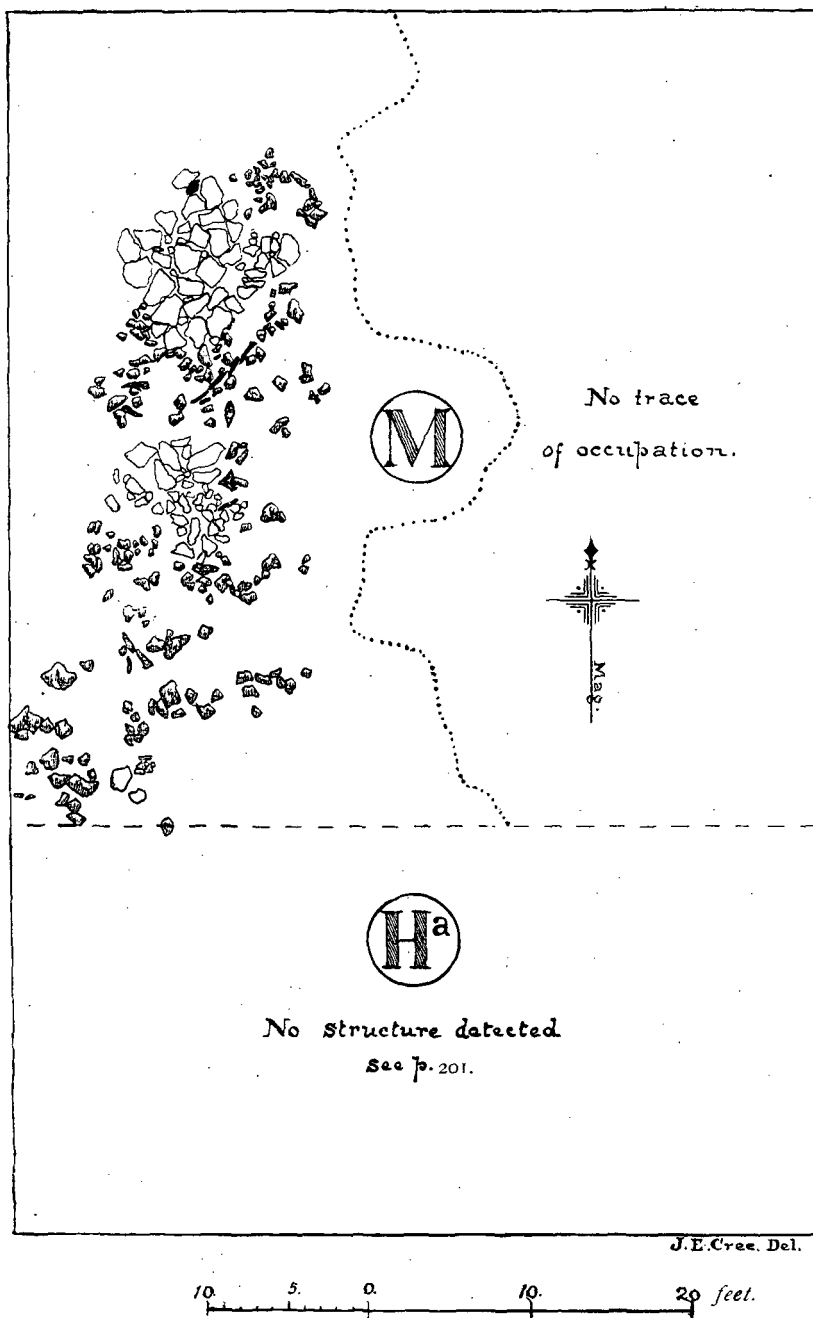


Fig. 7. Plan of Foundations on level 5^a of sections H^a and M.

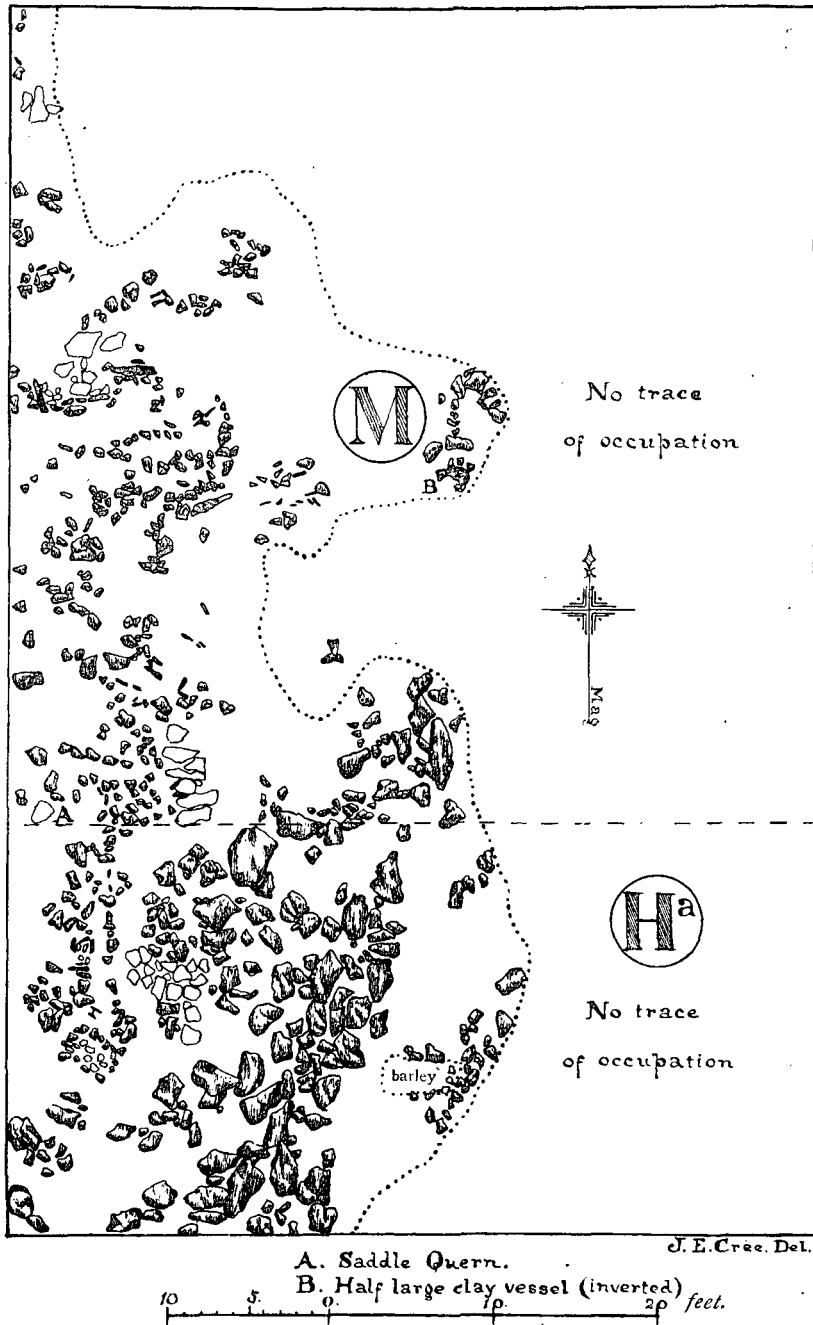


Fig. 8. Plan of Foundations on the lowest level (No. 6) of sections H^a and M.

of the section. This consisted of some paving which was practically surrounded by rough stones. There is little doubt that this enclosure formed a small dwelling; the principal entrance was towards the west, while a gap, in which two paving-stones were laid, was formed through the surrounding large stones on the south. This also may have been used as an entrance. The interior diameter of this circle was only about $4\frac{1}{2}$ feet. The entrance on the west was approached by two steps; the lower was formed of two flat stones, while the upper consisted of three flat stones, the rise being about 4 inches. About 4 feet distant in a south-westerly direction a rectangular hearth was found; its long axis lay north-west and south-east, and the open end appeared to have been in the latter direction. The centre of the hearth was paved with small flat stones, while, instead of the usual kerbing which has been almost universally observed heretofore, this hearth was merely bordered with small rough stones. About a foot to the north of it three small stones were found set on edge much in the shape of the letter H. A few feet further north and almost directly west of the entrance to the small dwelling other stones were found set on edge, which on plan would almost seem to represent a small hearth having two kerbstones wanting, one on each side. This structure was paved with four small flat stones, but it is highly improbable that it ever served the purpose of a hearth, as its dimensions were too small and no evidence of fire was observed in connection with it. To the east of the dwelling, *i.e.* at the back of it, a mass of large rough stones was found running diagonally across the occupied area in a north-easterly and south-westerly direction. These stones were laid on a slope in such a manner as to form an embankment, on the top of which, to the east, a small terrace had been formed. The ground here seemed to have been filled in with soil dug out from a higher level. At the back of this terrace a small retaining wall had been built, which would prevent the sloping ground to the east slipping down. Against this retaining wall a small enclosure had been formed. Two stones were placed on the north side and two on the south, while three small paving-stones were placed against the retaining wall on the east. This enclosure was found to contain a quantity of barley, which was, of course, carbonised through age. It covered a floor area of about 2 feet in breadth by 6 feet in length. The barley had been covered by a layer of clay nearly 2 inches in thickness, on the top of which seemed to have been scattered a number of twigs or small branches. From the fact that this cache of barley had been covered in the manner mentioned, also from the small quantity of grain stored, it would seem that the enclosure had not been used to hold barley for household use. Possibly the grain represented the amount set aside for

the next spring's sowing. A quantity of it was submitted for investigation to Mr Harry F. Tagg of the Royal Botanic Garden, Edinburgh, and we are indebted to him for the annexed report:—

REGIUS KEEPER,—I have to report that I have examined a sample of carbonised grain and accompanying soil taken by Mr J. E. Cree from the site of a pre-Roman dwelling at Traprain Law. I find:—

1. Much of the grain is undoubtedly barley. Some grains resemble wheat grains in form, but I am not convinced than any of them are, in fact, wheat grains. Fragments of ear-rachis and accessory glumes suggest that the form of the barley ear was two-rowed.

2. A number of weed seeds and fruits associated with the grain. Of these I have identified:—

(a) A number of seeds of a species of *Chenopodium*, probably seeds of *Chenopodium album*, Linn.

(b) A few fruit parts of *Raphanus Raphanistrum*, Linn.

(c) Four nutlets of a species of Dead-nettle. These are of the size and form of the nutlets of *Galeopsis versicolor*, Curt.

(d) Six fruits of species of *Polygonum*. There is, I think, no doubt that two of these are *Polygonum Convolvulus*, Linn.: the others I believe to be *Polygonum Persicaria*, Linn.

(e) Two seeds of *Sinapis arvensis*, Linn.

3. The large number of Chenopodiaceous seeds, mostly I believe *Chenopodium album*, Linn., calls for remark. Three to four hundred were picked out of the sample, which contained, I estimate, two or three times this quantity. In sharp contrast with this abundance is the scarcity of other kinds of weed seeds.

(Signed, H. F. TAGG.)

18th March 1922.

To the north of this cache, and extending into section M, a few grains of barley were found scattered here and there, but these seemed to have been spilt, possibly when filling the small enclosure above mentioned.

Dealing now with the adjoining section M, we find only about a third of the ground on this level had been under occupation, and a very considerable number of medium-sized stones set on edge were found scattered over the entire occupied zone. In two or three cases these stones had been set so as to form three sides of a small square. The suggestion might be made that these were referable to post holes, but the remains of posts were not noticeable, although a small amount of carbonised wood was found in and about the stones. The remains of only one hearth was found, close to the west line of the section and about 25 feet from the south-west corner. Kerbstones remained only on the west and south sides, and it seemed to have been orientated east-north-east and west-south-west. Only three areas that could be considered paved were uncovered.

At the extreme south-west corner of the section a saddle quern (marked A on plan) was found lying in position on the subsoil, and

this probably had reference to the dwelling in H^a, which was about 10 feet distant.

The dwelling and other structure above described in H^a and M is of particular interest, as from the relics obtained, which will be described later, there is no doubt that the occupation of this level is referable to the "overlap" period, *i.e.* the period covering the termination of the Bronze Age and the introduction of iron into Scotland. This is an interesting discovery, for not only was the hearth in close proximity, but the saddle quern on which the grain was ground was lying only a few feet away.

In this connection it is well to remember that the period here referred to is several centuries earlier than the commencement of the period with which we have been accustomed to deal, *viz.* from the beginning of the second to the beginning of the fifth centuries A.D. It must also be borne in mind that all the ground on each level was not necessarily under occupation at the same time, and that, owing to the natural slope of the hill, levels, for instance, referable possibly to the Early Iron Age were found to be on the same horizon as occupied areas of a much later date. The importance of these particulars having been established, it was determined, in view of the length of time taken in laying bare so many different levels which failed to give details of relative importance, that for the future—so far as this year's work was concerned—we should return to the old method of laying bare four arbitrary levels only.

From these observations it will be realised that the term "level" in connection with a continuous occupation is necessarily inaccurate, although for descriptive purposes this method is more convenient and has its advantages.

Our work this year proved extremely important by reason of the finding of the Early Iron Age dwelling-site on section H^a; but so far our excavations have failed to reveal a continuity of occupation from this period on to, and linking up with, the earliest identified first- or second-century inhabitation of the site, and a possible hiatus of several centuries may exist.

Following the procedure of previous years, the description of the relics will be taken conversely to that of the levels. As has been explained heretofore, the purpose of this method is to show from the occurrence and development of the various types of relics the progress in civilisation of the dwellers on the site discovered.

Before dealing with the relics from the Early Iron Age dwelling-site above mentioned, we must describe some relics referable to the Late Neolithic or Bronze Ages. These are of stone and flint.

First may be mentioned a portion of a polished stone axe (fig. 9, No. 1), which we have already noted on p. 191 as coming from the top level. It is broken about 2 inches from the cutting edge, and measures $1\frac{3}{8}$ inch across. It is made of claystone, and seems to have been through the fire. Another stone axe (fig. 9, No. 2) came from the sixth level, and is made of a similar material to the one just described. It is neatly fashioned, and measures $2\frac{7}{8}$ inches in length by $1\frac{7}{8}$ inch across the cutting edge. This level produced another axe (fig. 9, No. 3), which is of more than ordinary interest, as it has been used as a pounder subsequently to its use as an axe. Both the cutting edge and the butt have been much abraded, and the implement now only measures $4\frac{7}{8}$ inches in length.

The next is a stone implement which measures $5\frac{3}{8}$ inches in length, $3\frac{1}{4}$ inches in breadth, and $\frac{1}{8}$ inch in thickness. It is made of a piece of volcanic tuff, and has been chipped almost completely round its edges, giving it a rectangular form with rounded corners. On one face it is smoothed, and seems to have been used as a polisher. Although this implement has been described here, it is by no means certain that it is Neolithic. It may be much later, though parallels referable to this period are known.

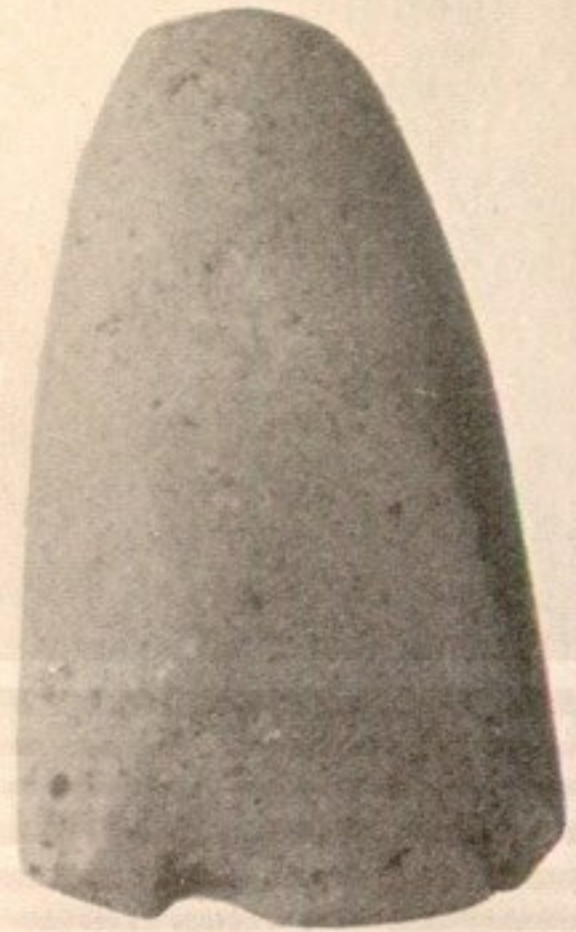
Throughout the work several scrapers and flakes of flint have been found, and will now be described, as they probably belong to the same period. A fine scraper of dark brown flint is illustrated on fig. 10, No. 1. The upper surface is neatly worked almost the whole way round, while the under side is worked for a distance of $1\frac{1}{2}$ inch, the scraper being thus worked entirely around its periphery. Roughly speaking, it is $2\frac{3}{8}$ inches in greatest length by about $1\frac{3}{8}$ inch in breadth, and it shows evidence of having been in use. A flint implement (fig. 10, No. 2), which is finely worked on one side only, is of somewhat peculiar shape, and measures $1\frac{5}{8}$ inch in length. At one end it measures about 1 inch in breadth, and at the opposite end it is only $\frac{1}{4}$ inch across. The centre is high and about $\frac{1}{4}$ inch in thickness, from which point it tapers to both ends. The worked edge is on the upper right-hand side, which is slightly and irregularly hollowed. Another implement of flint (fig. 10, No. 3) is similarly shaped, but presents an almost directly opposite figure. It measures $2\frac{1}{8}$ inches in length, and at the lower end $\frac{3}{4}$ inch across, while at the upper end it is only $\frac{1}{4}$ inch in breadth. The centre is $\frac{3}{8}$ inch in thickness, and, as in the previous example, the implement tapers towards both ends. In this instance the worked edge is on the upper left-hand side. A circular scraper of flint (fig. 10, No. 4) shows signs of much usage. It measures $1\frac{7}{8}$ inch in diameter. Another scraper of grey flint (fig. 10, No. 5) measures $1\frac{1}{8}$ inch in length and about $\frac{1}{8}$ inch in breadth.



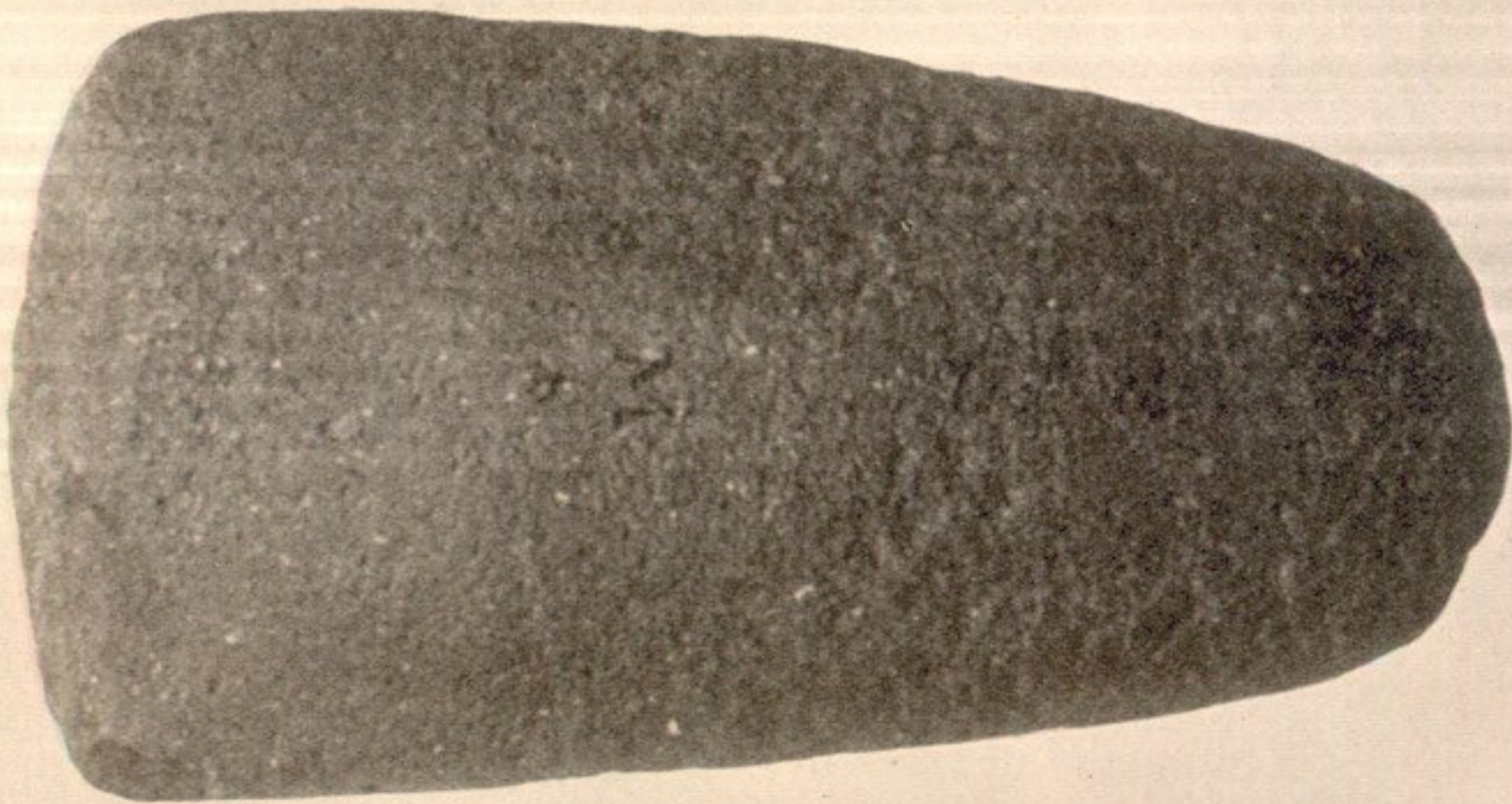
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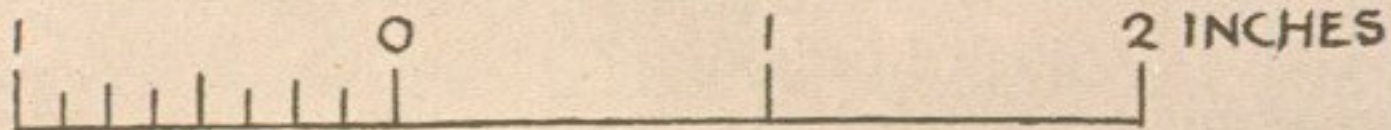


Fig. 9. Stone Axes.

It is of horse-shoe shape, and is nicely worked round the edge on the upper side. Then we have a small object which may have been a borer. It measures $1\frac{1}{8}$ inch in length and $\frac{13}{16}$ inch in breadth, and is worked to

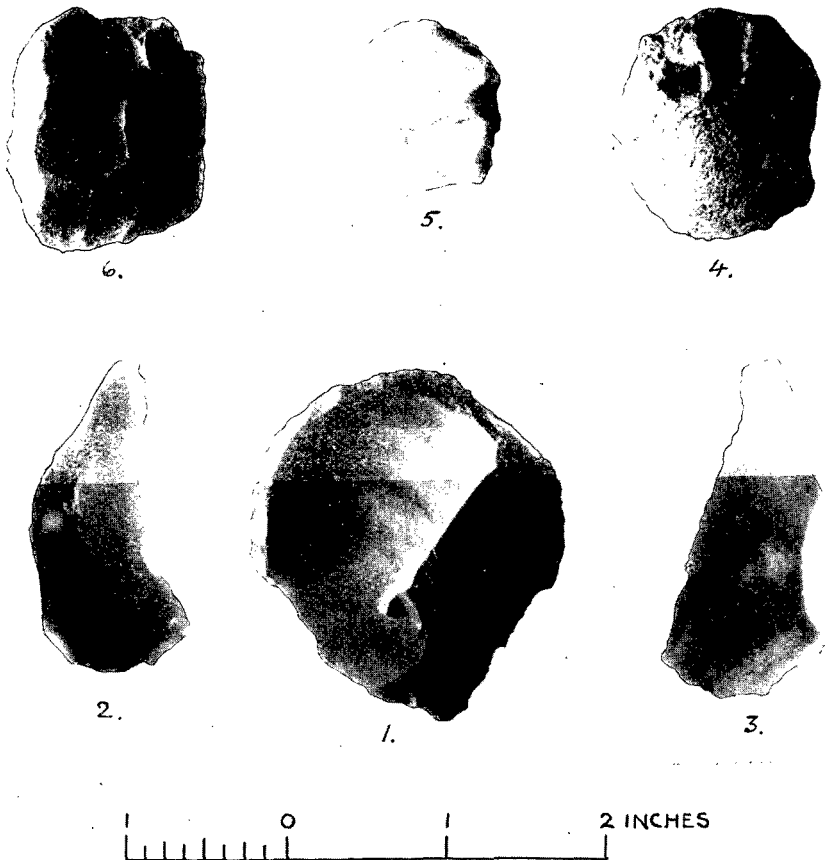


Fig. 10. Flint Implements.

a sharp point. The rounded base of a leaf-shaped arrow-head is the sole representative of a weapon of this sort which has been found this year. There are also a few worked fragments of flint and one or two unworked flakes, but these call for no comment.

We now come to relics referable to the Late Bronze Age and Early Iron Age:—

Bronze.—Close to the doorway of the dwelling lay two bronze socketed axes about 1 foot apart, both of which had a loop at the side. The first (fig. 11, No. 2) measures $4\frac{1}{8}$ inches in length. The socket, which is nearly circular, measures $1\frac{1}{2}$ inch in external diameter. There is a slight moulding round the top, below which, at a distance of $\frac{7}{16}$ inch,

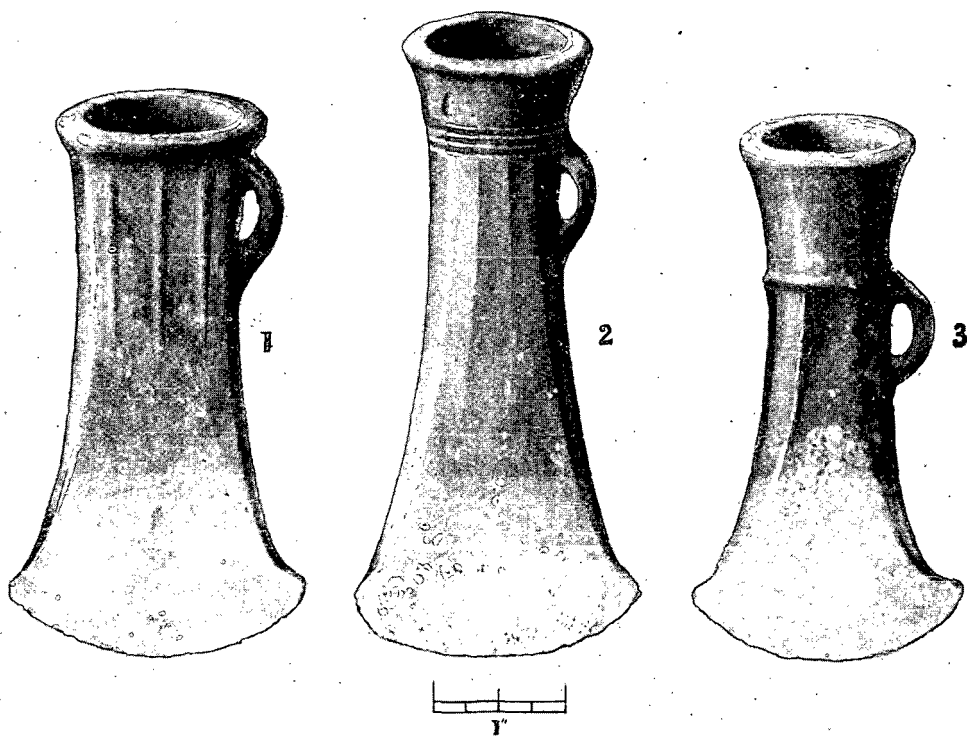


Fig. 11. Socketed Bronze Axes.

is a band of three slightly raised, half-round mouldings, which encircle the socket above the loop. The body of the axe is twelve-sided, but the sides merge into a flattened surface lower down. Across the cutting edge it measures about $2\frac{1}{8}$ inches.¹ The second axe (fig. 11, No. 1) measures about 4 inches in length. The socket is also circular, and measures $1\frac{5}{8}$ inch in external diameter. Round the top is a moulding nearly $\frac{1}{4}$ inch in breadth, below which three slightly raised parallel ribs extend downwards for a distance of about $1\frac{3}{4}$ inch. The body of

¹ A similar axe was found in the Castle Hill, Forfar, hoard, and is in the Museum. (*Proceedings*, vol. ii. p. 65.)

the axe is flattened, and across the cutting edge it measures $2\frac{1}{4}$ inches.¹
 A third socketed axe (fig. 11, No. 3) was found on the north-east side

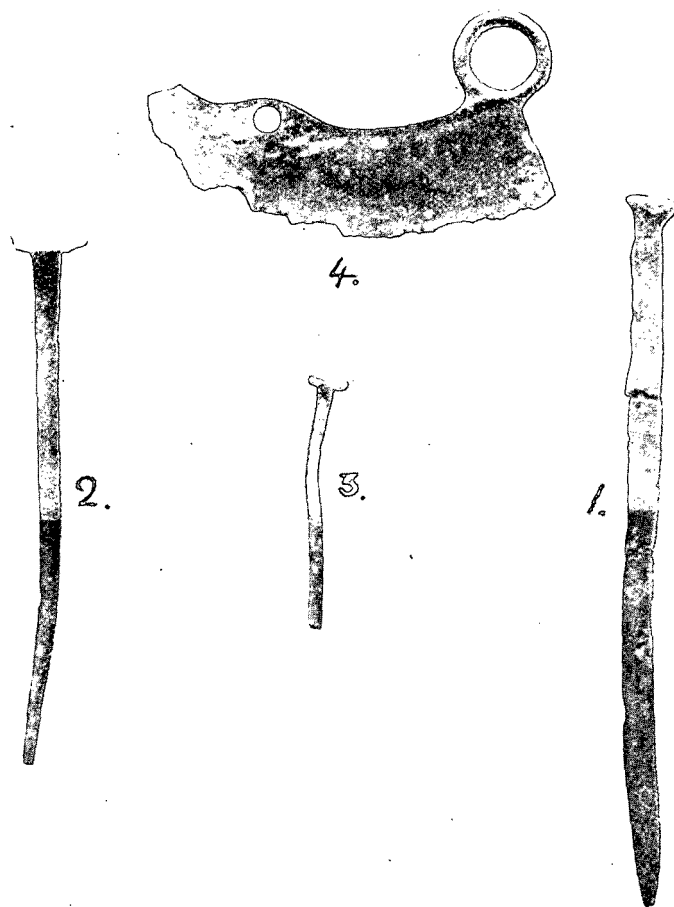


Fig. 12. Bronze Pins and Razor. (4.)

of the dwelling, about 5 feet from the two axes above described; it measures 4 inches in length. The socket is nearly circular, and measures $1\frac{3}{8}$ inch in external diameter. It is trumpet-mouthed, and has only a

¹ One nearly similar was found at Bell's Mills, Dean, Edinburgh, and is also in the Museum. (*Proceedings*, vol. vi. (1865), p. 275.)

suggestion of a moulding round the top. The loop is placed underneath a moulding which encircles the socket an inch below the mouth, and underneath this the body of the axe is octagonal. The cutting edge is much rounded, and measures $1\frac{3}{32}$ inch across. This type seems to be uncommon in Scotland.¹

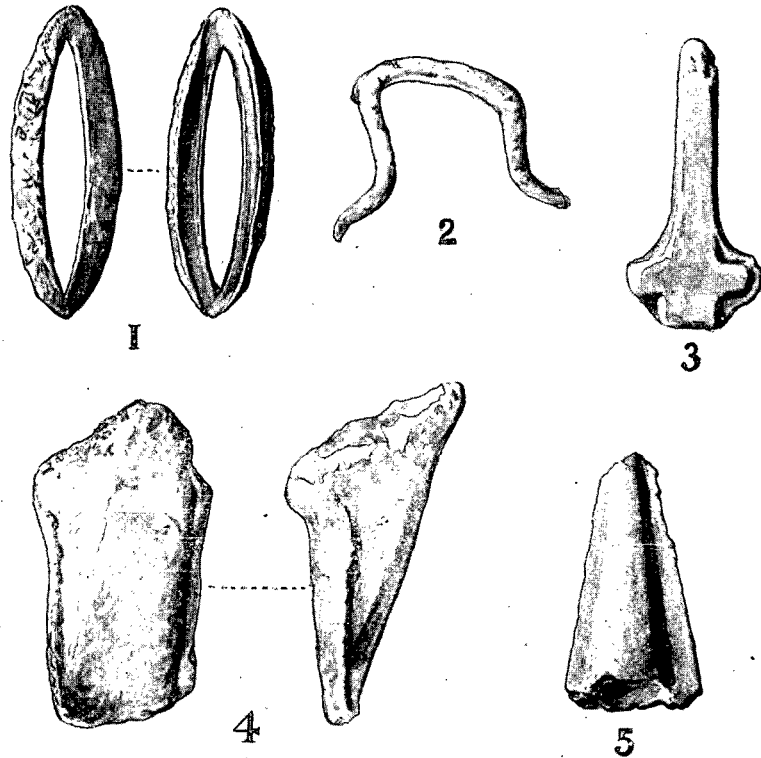


Fig. 13. Bronze Objects. (1.)

A point of a spear (fig. 13, No. 5) came from section M, fourth level. It measures $1\frac{3}{8}$ inch in length. The same section and level also produced a wedge-shaped object, evidently waste metal from the gate of a mould (fig. 13, No. 4), which measures $1\frac{1}{4}$ inch in length. The pointed end of the wedge measures $\frac{3}{16}$ of an inch in breadth.

From section H^a, sixth level, also came three pins. One (fig. 12, No. 1)

¹ An almost identical example is noted by Sir John Evans, *Ancient Bronze Implements*, p. 129. It was in the collection of Canon Greenwell, and was found at Newham, Northumberland.

measures $3\frac{1}{8}$ inches in length. Its head is oval, and the shank has the same form, but is flattened. The second (fig. 12, No. 2) is $2\frac{1}{8}$ inches in length, but the point is broken off. The head is circular, and measures $\frac{1}{3}$ inch in diameter. The shank is round, and tapers gradually to the point. The third (fig. 12, No. 3) resembles a wire nail. It has a circular head, and measures $1\frac{7}{8}$ inch in length. Below the head the shank is ornamented by four groups of two incised lines.

A small pointed oval mounting (fig. 13, No. 1) was found on level H^a 1^a not far from the pins above mentioned, although on a nominally higher level. It measures $1\frac{9}{16}$ inch in length and $\frac{9}{16}$ inch in breadth. The opening in it measures $1\frac{3}{16}$ inch in length by $\frac{7}{32}$ inch in breadth. This possibly has been attached to the lower part of the handle of a knife or dagger, and has been intended to act as a stop to prevent the blade being thrust too far into the sheath or scabbard. The under side is hollowed, possibly to admit of the handle closing down on to the scabbard.

Fig. 13, No. 3, is a part of the tang and shoulder-stops of what has probably been a chisel. Unfortunately, the tang, which is squared, has been recently broken, and now only measures $1\frac{1}{2}$ inch in length. This relic came from level 5^a, and is of similar type to one found last year and illustrated in our Report for 1921 (fig. 10, No. 15), which came from the lowest level.

A staple (fig. 13, No. 2), measuring $\frac{9}{16}$ inch in inside diameter, is made of a piece of thick wire, and has two tangs, which are bent outwards at the ends. This object has possibly been driven into wood and the ends clinched to prevent it being withdrawn.

A small fragment of a blade measures about 1 inch in length and $\frac{1}{16}$ inch in breadth. A portion of what may have been a small vessel has a finished edge or rim. It has been crushed, and appears to have been burnt.

Moulds.—From the third level, section M, came one side of a mould for casting the hilt portion of a leaf-shaped bronze sword of the usual type (fig. 14, No. 1).¹ Although found on a relatively high level, this obviously belongs to the Late Bronze Age. The mould seems to be unique in Great Britain. Below the top of the mould the matrix of the hilt commences, and this measures 1 inch across. From here, on both sides, the matrix is curved inwards for a distance of $\frac{5}{8}$ of an inch. At this point the hilt is contracted to $\frac{5}{8}$ of an inch, and from here downwards for a further distance of $1\frac{3}{16}$ inch the matrix is deepened, and shows a gradual swelling which indicates the grip. At the point where the mould is broken the grip measures $1\frac{1}{8}$ inch across. A small

¹ A mould made of stone for the casting of a short leaf-shaped sword was found in Ireland (*Mémoires des Ant. du Nord*, 1872-77, p. 142, fig. 4); and fragments of clay moulds, possibly for a similar purpose, have been found at Boho, near Enniskillen, Co. Fermanagh, and at Old Connaught, Bray, Co. Dublin.

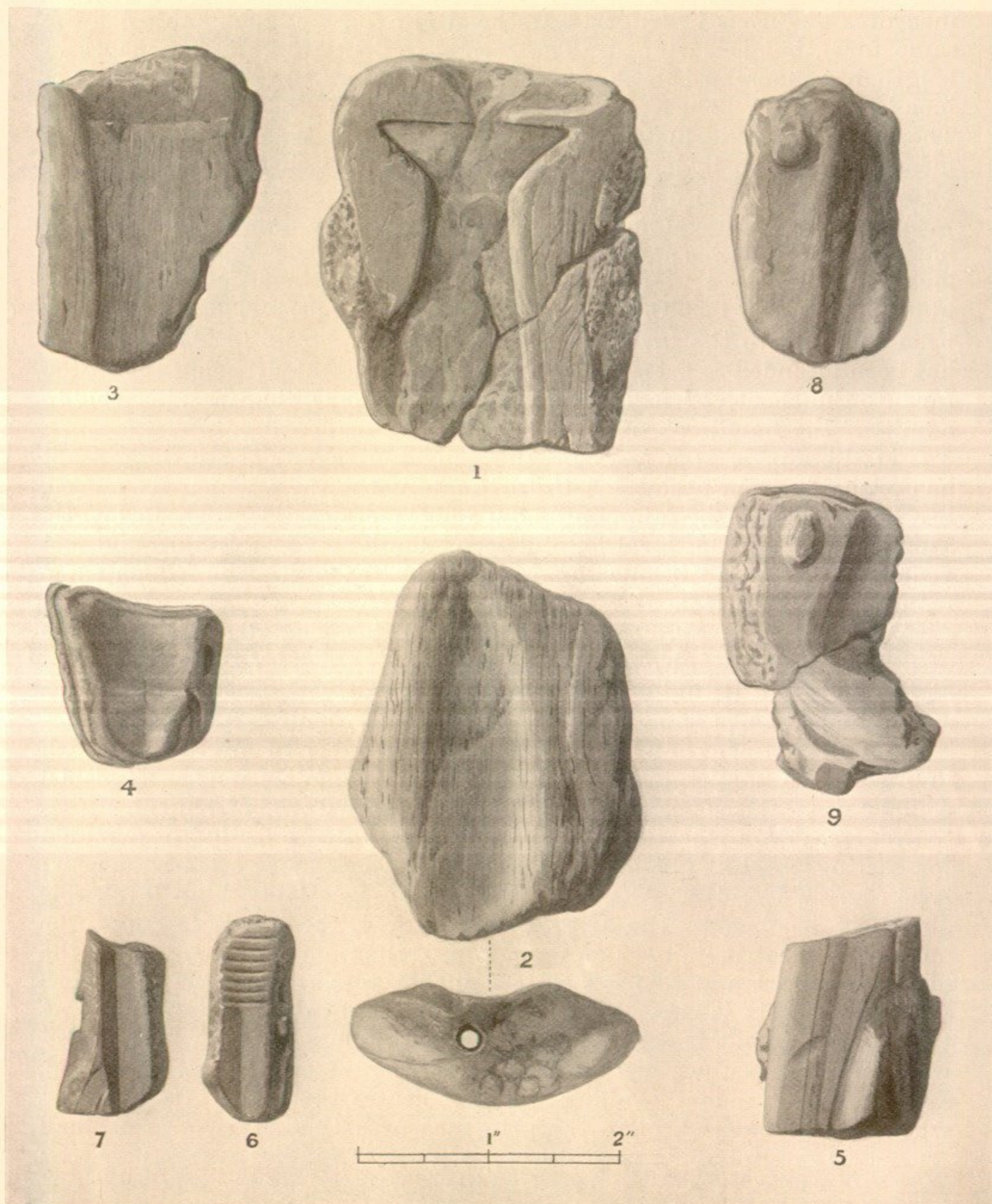


Fig. 14. Fragments of Clay Moulds.

tapering hole penetrates the body of the mould longitudinally under the matrix, obviously to serve rather an important purpose. In association with this part of the mould was another small fragment measuring $1\frac{1}{16}$ inch in length and about $1\frac{3}{8}$ inch in breadth. This fragment, which is rounded on the under side and slightly concave on the upper, may well be a blade portion of the mould. In this a hole $\frac{3}{16}$ of an inch in diameter occupies the same relative position as in the mould for the hilt, and it is suggested that, owing to the length of the sword, it was found necessary to reinforce the mould throughout the greater part of its length by enclosing in the clay a rod of metal. The paste of which this mould is composed is of fine texture in the interior, and the exterior seems to have been formed of a mixture of clay and fine-grained sand. The importance of the find, however, is in the proof of the casting of Bronze Age swords on Traprain Law; and the additional fact is made clear that these swords were presumably cast in moulds made in halves, and of clay. Several fragments of the same or a similar mould were found in other sections and will be described later. A few other portions of moulds, also made of clay, were found in association with the above. Some appeared to have been for the casting of bronze socketed axes, three of which are illustrated on fig. 14, Nos. 4, 8, and 9, the two latter having been found in 1920, while one fragment (fig. 14, No. 5) suggests the casting of a bronze spear with lunette openings in the blade.

Fig. 15 represents a remarkable bronze pin which is of an Early Iron Age type and is of extreme rarity. This pin was found on section H^a, level 1^a, and has already been mentioned. In total length it measures $3\frac{5}{8}$ inches. The head is circular, and measures $\frac{3}{4}$ of an inch in width, with deep concavities on each side. Around the centre of the head, dividing it into two equal segments, runs a shallow groove, notched at regular

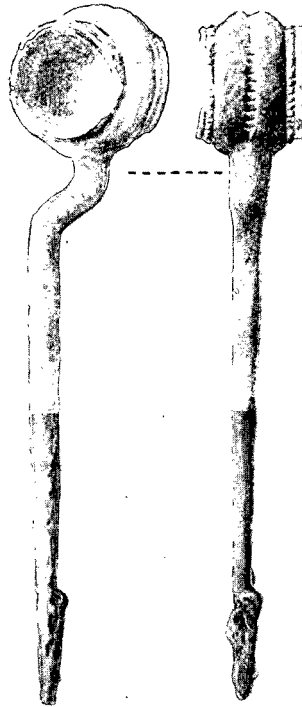


Fig. 15. Bronze Pin. (t.)

intervals by short incised lines. A double raised moulding is carried round the edges, the inner one being also notched. The pin has a knee-shaped bend just below the head, and gradually tapers to the point. The iron object which was corroded to this pin may here be noted. Apparently it has been composed of one large and several smaller rings, together with a straight stem or pin, but its shape is too indefinite for determination.

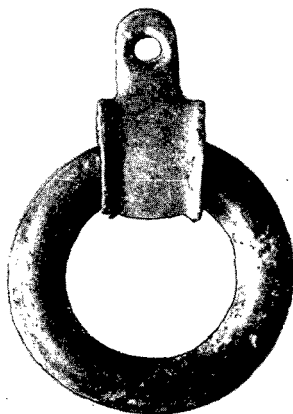


Fig. 16. Bronze Girdle-ring. (4.)

Another relic of very great interest is a razor also of the Iron Age (fig. 12, No. 4). The blade is curved, and measures $2\frac{9}{32}$ inches in length, but the point is broken off. At the end of the blade is a projecting loop which measures nearly $\frac{17}{32}$ inch in extreme diameter. The back of the blade is thickened, and extends from this loop in a raised curving ridge to the point. Below the loop the width of the blade is $\frac{5}{8}$ inch. At a distance of $1\frac{5}{16}$ inch from the butt end of the blade, and immediately underneath the back ridge, is a hole measuring $\frac{1}{8}$ inch in diameter. This type of razor is probably unique in Great Britain.¹

Fig. 16 is a heavy metal ring, measuring $1\frac{1}{2}$ inch in external diameter. It is circular in cross section, the diameter of which is $\frac{5}{16}$ inch. The ring is covered with a fine dark purple patina, and passes through a broad band or loop of bronze $\frac{9}{16}$ inch in breadth, with upturned edges. The under side of this loop has a rounded swelling in the centre, which decreases towards the upturned edges. Projecting from this band on the upper side is a tongue $\frac{1}{2}$ inch in length and about $\frac{3}{8}$ inch in breadth. Through the tongue a hole has been bored about $\frac{1}{8}$ inch in diameter, and this is countersunk on both sides. The ring and the loop seem to be of different metal, as the loop is devoid of any patina and does not seem to be of the same texture. This object has without doubt been a girdle-ring.²

Iron.—One of the most important finds this year was an iron socketed

¹ A razor of similar type found at Möringen, in Switzerland, is in the St Germain Museum. Other examples showing some similarity are illustrated in Keller's *Lake Dwellings*. Some are from Nidau-Steinberg, pl. xxxv. figs. 18 and 24; another from Möringen, pl. lii. fig. 6; while others come from Auvèrnier, pl. liii. Note particularly fig. 5.

² Similar objects are noted in *Die Ältere Eisenzeit Gotlands*, by Oscar Almgren (1st part), Stockholm, 1914; see p. 7, fig. 8 and pl. v. Nos. 54-59; also pl. ix. Nos. 128-131. Another is illustrated in *The Viking Age*, Du Chaillu, vol. ii. p. 307, fig. 1176.

axe, of Bronze Age type, with a loop at the side (fig. 17). This was found about 23 feet from the north-west corner of the section, close to the north section line. It is in very good preservation, and measures $5\frac{1}{4}$ inches in length. The socket is oval, and outside is ornamented round the top by a moulding $\frac{1}{4}$ inch in width. The external diameters at the mouth of the socket are $2\frac{3}{8}$ inches by 2 inches, and the metal is about $\frac{3}{8}$ of an inch in thickness. The loop is placed $1\frac{1}{4}$ inch below the mouth of the socket, while across the cutting edge the axe measures about $2\frac{1}{2}$ inches.¹ That this axe has been modelled after the Bronze Age type is undoubted; but whereas the latter were cast in moulds, the casting of iron was unknown until long after this time. The iron axe then was hammered out of malleable iron into the desired shape, the socket being formed over a mandrel. It will thus be realised that the workman of this period had already acquired a large amount of skill.

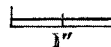


Fig. 17. Socketed Iron Axe. (i.)

Another relic of more than ordinary interest is a small tanged sickle (fig. 18, No. 1), which came from the second level of H^a. It has a curved tapering blade measuring $3\frac{7}{8}$ inches from the tang to the point. At a distance of $3\frac{3}{8}$ inches from the part where the blade commences the tang is bent at right angles like the scythe of to-day, and finishes in a point. Possibly this was intended to drive into a wooden haft, but the sickle would, no doubt, be further secured to the handle by other means. Although this sickle came from a nominally high horizon,

¹ Two iron socketed axes are known to have been found in Scotland. One without a loop was found in a crannog near the south-eastern shore of the south end of the Bishop Loch, Parish of Old Monkland, Lanarkshire. The other came from the Culbin sands, and is now in the Museum. It measures 4 inches in length; the socket is $2\frac{1}{8}$ inches by $1\frac{3}{8}$ inch in diameter, while across the cutting edge the axe measures $2\frac{1}{2}$ inches. Several have been found in England and Wales. Sir John Evans, *Ancient Bronze Implements*, p. 144, writes: "The transition from bronze to iron cannot so readily be traced in this country as on the Continent; but socketed celts, etc., formed of iron, and made in imitation of those in bronze, have occasionally been found in Britain. One (4 inches), with a side loop, and a part of its wooden handle, was found in Merionethshire. . . . Another of the same type was found in North Wales." Yet another is mentioned ($5\frac{1}{4}$ inches) with a rounded socket and no loop. It was found in Essex; and one from Loch Mourne, Ireland, is illustrated in the *Proceedings*, vol. xx. p. 330.



Fig. 18. Sickles, Spear-head, and other Objects of Iron.

it was lying on the natural rubble, and was found not many feet towards the north-east from the cache of barley on sixth level attributed to the Early Iron Age.¹

Glass.—The only object of glass which, with a certain amount of safety, can be referred to the Early Iron Age is a bead of darkish blue colour. It is an irregular oval, and measures $\frac{9}{16}$ inch in length by $\frac{1}{2}$ an inch in breadth and about $\frac{3}{8}$ inch in thickness. The paste of which it is composed is much pitted. Another small bead of dark blue glass measures $\frac{1}{4}$ of an inch in greatest diameter; it is of globular form, flattened at both sides. Although it came from this level it probably belongs to the Romano-British occupation of the hill.

Stone.—Three saddle querns were brought to light this year, and may be attributed at least to the Early Iron Age occupation. One, measuring $20\frac{1}{4}$ inches in length and $12\frac{1}{4}$ inches in breadth, has been worn down about $\frac{3}{4}$ inch. It was found close to the south line of section M, and is marked A on plan of sixth level. Another was found on section H^a, and came from the fifth level. It measures $14\frac{1}{2}$ inches in length and $10\frac{3}{4}$ inches in breadth, and is only slightly worn down. A third was recovered from the second level H^a. It measures $15\frac{1}{2}$ inches in length, $10\frac{1}{2}$ inches in breadth, and is worn down about $\frac{7}{8}$ of an inch.

Pottery.—Several fragments of what appears to have been a large crucible must be noted. These are made of a fine-grained clay, and show considerable metallic slag deposit on what has been the wall of the vessel. In one case the thickness of the clay wall is only about $\frac{1}{4}$ of an inch, while the thickness of the encrusted slag is $\frac{3}{8}$ inch. Small crucibles have been found complete in previous years' excavations, but the fragments here mentioned seem to represent a vessel capable of containing a very much larger amount of molten metal.

Two shards of coarse pottery have been found showing decoration. Fig. 19, No. 1, has been a small vessel. It has a fairly compact texture, and is well fired. A small portion of the rim, which is $\frac{1}{4}$ inch in thickness, remains, and it seems to be nearly vertical. Below this the wall of the vessel has bulged slightly outwards. The decoration, such as it is, consists of an irregular line of indentations which have been made with a pointed stick. These have been placed on the shoulder of the vessel. The next shard (fig. 19, No. 2) is of thicker texture, and appears more friable. The rim is slightly everted, and the inside of it has a number of indentations, also made with a pointed stick. These two shards and two others to be described later are the only finds of decorated pottery of native manufacture of this period which have

¹J. Curle, *A Roman Frontier Post*, p. 283, pl. lxi. Nos. 2 and 5, mentions the finding of two sickles of slightly different patterns.

been obtained on the Law up to the present. Many other shards of native manufacture were also found on this level, but, as they have

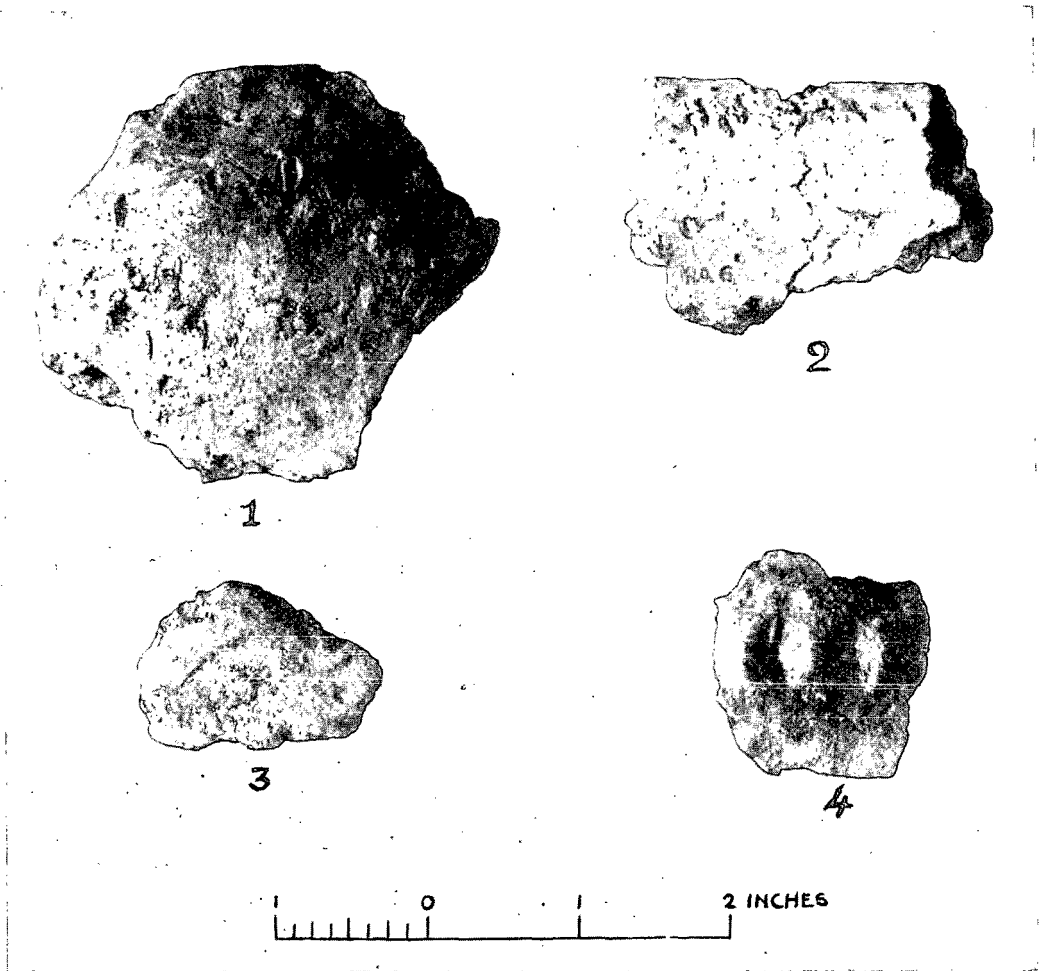


Fig. 19. Shards of Early Iron Age decorated Pottery.

no definite characteristics pointing to an Early Iron Age attribution, no description seems necessary.

The level immediately above, as will be remembered, has been marked 5^a, and this belongs to a much later period of the occupation, viz. to the beginning of the second century A.D. It has been explained that we failed to detect this level on section H^a, but we identified it

on section M, and therefore the relics to be described all come from that section. As a natural sequence to this, it will be seen that any relics which might have been referable to section H^a will fall to be included in the relics from the fifth level.

Bronze.—A pin (fig. 20, No. 1), with circular head formed of six balls which are flat on the back, resembles one found last year on the second level,¹ but the head is slightly smaller than in last year's example. The stem of the pin connects with the head at the back, where it has a small shoulder about $\frac{3}{16}$ inch in length, from which point it turns downwards at right angles. The stem has been broken, and now only measures $\frac{7}{8}$ inch in length.

A needle (fig. 20, No. 2); measures $2\frac{7}{16}$ inches in length, with the eye $\frac{7}{16}$ inch distant from the head. Above the eye, on both sides, is a groove, which diminishes gradually towards the head.² An object, now bent, whose purpose is not apparent, is formed of a thin plate of bronze, which overlaps at the junction and tapers towards the point. It measures about $1\frac{1}{2}$ inch in length, and the diameter at the top is about $\frac{1}{4}$ of an inch. A small rod of circular section measures 1 inch in length.

Glass.—Two small fragments of opaque white glass armlets were recovered. The larger is triangular in cross section, and measures $\frac{1\frac{1}{2}}{3}$ inch in breadth; the smaller, which is slightly more plano-convex in cross section, measures $\frac{1\frac{3}{8}}{3}$ inch in breadth. Two small pieces of Roman green bottle-glass are too fragmentary to warrant description.

Stone.—A stone measuring $4\frac{3}{4}$ inches in length and squared at one end shows friction marks on the edges as if made by a cord. A stone of fine texture which may have been used as a hone or polisher (fig. 21, No. 1), is in the form of a right-angled triangle, having one side slightly rounded. The base measures $1\frac{5}{8}$ inch, while from base to apex the stone measures $2\frac{7}{16}$ inch. On both sides facets are shown, apparently formed by repeated rubbing. Another stone in the form of an isosceles triangle (fig. 21, No. 2) is of a finer-grained clay-stone. The base measures $1\frac{5}{8}$ inch, and from base to apex the object measures 2 inches. This has also been used for a similar purpose to the stone above described. Two sling-stones also came from this level. They are roughly spherical, and one measures $1\frac{1}{2}$ inch, while the other only measures $1\frac{1}{8}$ inch in diameter.

Whorls.—We have two whorls to describe. One (fig. 22, No. 1) is of shale, and measures 2 inches in diameter and is about $\frac{3}{8}$ inch in thickness.

¹ *Proceedings*, vol. liv. p. 186.

² Bronze needles have been found in the Broch of Lamaness, Sanday, in the Weem at Cairnconan, also at Glenluce Sands, Wigtownshire. Five bronze needles are noted in *The Glastonbury Lake Village*, by Arthur Bulleid and H. St. George Gray, vol. i. p. 224, pl. xliii., No. E43. *The Romano-British Site on Lowbury Hill*, by Donald Atkinson, p. 41, pl. xii. gives other examples from Lowbury and Silchester.

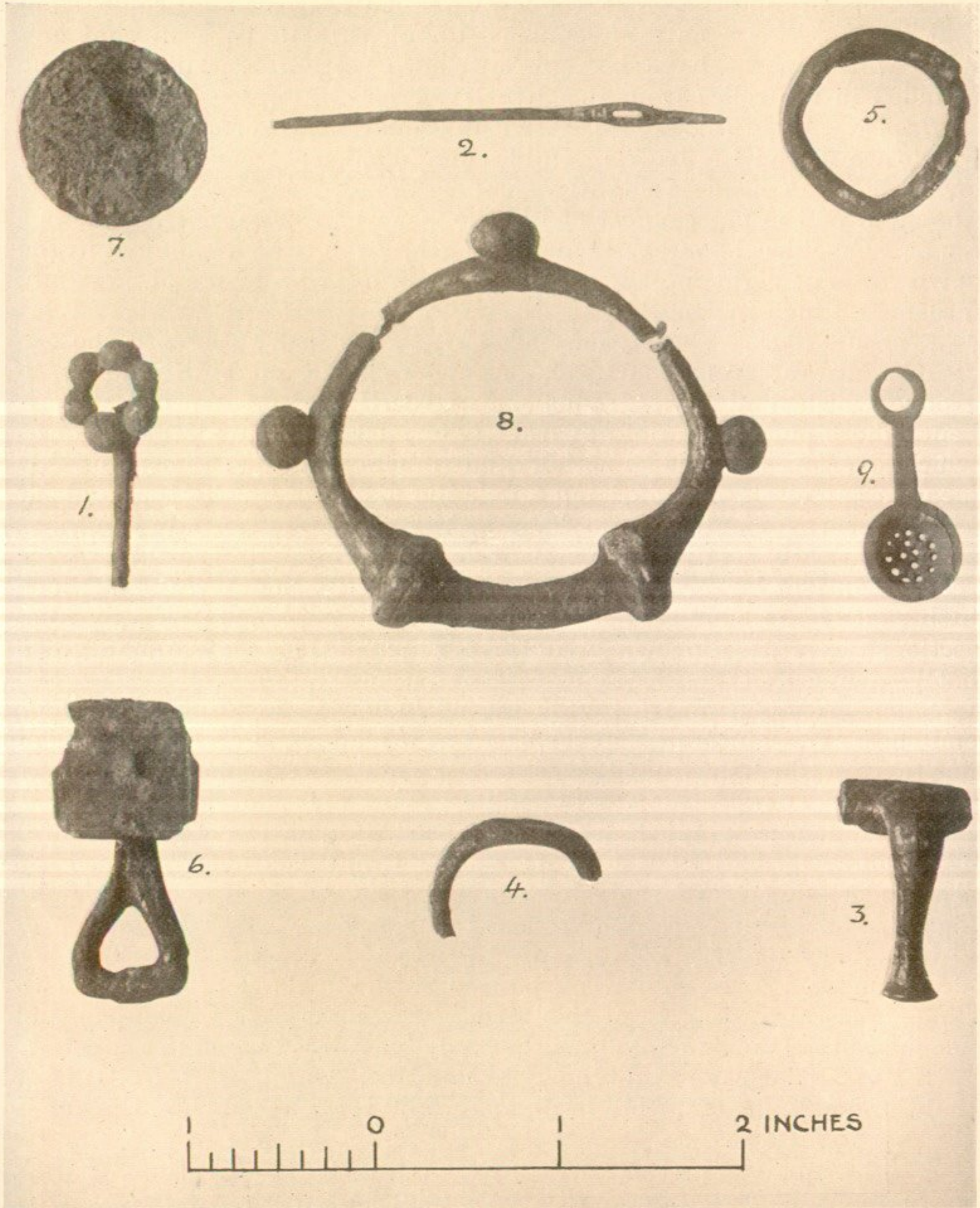


Fig. 20. Objects of Bronze, and Silver Strainer.

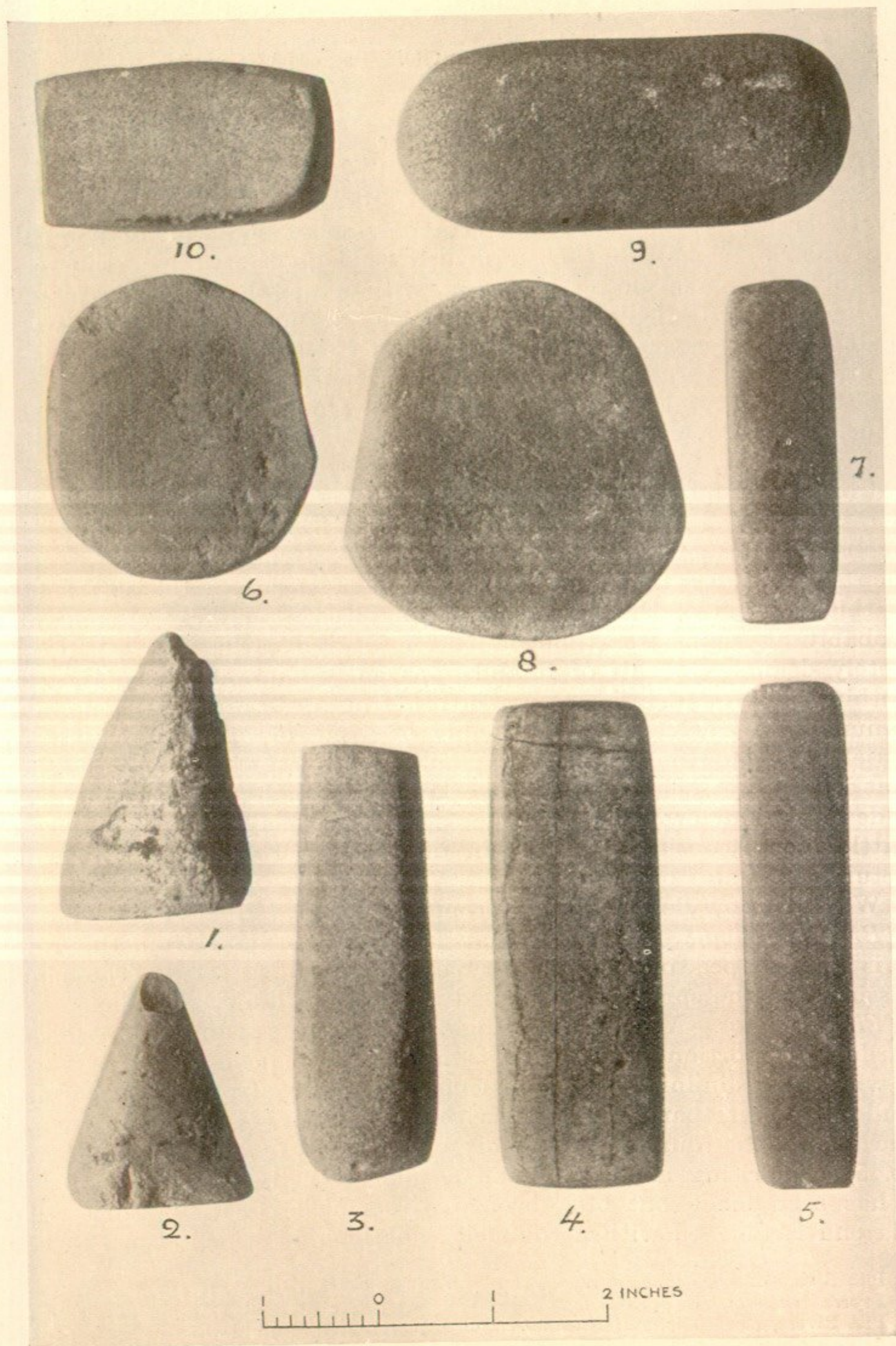


Fig. 21. Whetstones and other Objects of Stone.

The other has been formed out of a piece of dark red sandstone (fig. 22, No. 2). It measures $1\frac{3}{4}$ inch in diameter, and is about $\frac{7}{8}$ inch in thickness. In shape it is a flattened spheroid.

Pottery.—The only pottery worth notice which was found on this level consists of the foot-rim and a portion of the wall of a Samian ware bowl. A hole has been drilled through the wall of the vessel, possibly for the purpose of joining, with a metal band, this piece to another similarly drilled.¹ Two or three fragments of a large wheel-made vessel of coarse texture and about $\frac{9}{16}$ inch in thickness may be mentioned. Several shards of black cooking-pot, showing on the outside the usual lattice-work decoration. One fragment, also wheel-made, is of brownish clay, and has been decorated by vertical lines, three of which are shown on the shard. About the centre of the section, set round on three sides by small rough stones, was found half of a large vessel of native manufacture (fig. 23; see B on plan of sixth level). This vessel was inverted, and a narrow channel about 2 inches deep and possibly the same in width had been cut in the soft rubble. In this the rim of the vessel had been placed. A large stone, which probably at some later time had been set above the vessel, had completely demolished half of it and apparently had pulverised the clay. Nothing was found inside except a few fragments of burnt bone much comminuted, and one tooth, probably of a pig or calf. Although this vessel is marked on sixth level plan, its general characteristics show that it does not belong to the overlapping period, and consequently it is described on level 5^a. Two pieces of baked clay showing marks of wattle, and a considerable amount of coarse pottery of native manufacture, were also brought to light.

We shall now describe relics from the fifth level.

Bronze:—Fibula.—Only one fibula (fig. 20, No. 3) came from this level. It is knee-shaped, of the usual type, and is undecorated. The pin is missing, and the spring is contained in a semi-cylindrical casing.²

Finger Rings.—A finger ring (fig. 20, No. 4) was found, from which a considerable portion of the shank is missing. The head measures $\frac{5}{16}$ inch in width and diminishes at both sides. In the centre of the head is a shallow mount, partially filled with what seems to be red enamel. One similar was found at Rushmore.³ A portion of a spiral ring (fig. 20, No. 5), comprising about one and a quarter coil, is slightly crushed. It has been made out of a bronze wire which is circular in section. One end is finished with a rounded knob, behind which seems to be a

¹ Pitt Rivers, *Excavations in Woodyates*, vol. iii. pl. clxxxv. No. 17, p. 143.

² *Proceedings*, vol. xlix. p. 166, fig. 23, No. 3.

³ Pitt Rivers, *Excavations at Rushmore*, vol. i. pl. xv. No. 26, and p. 53.

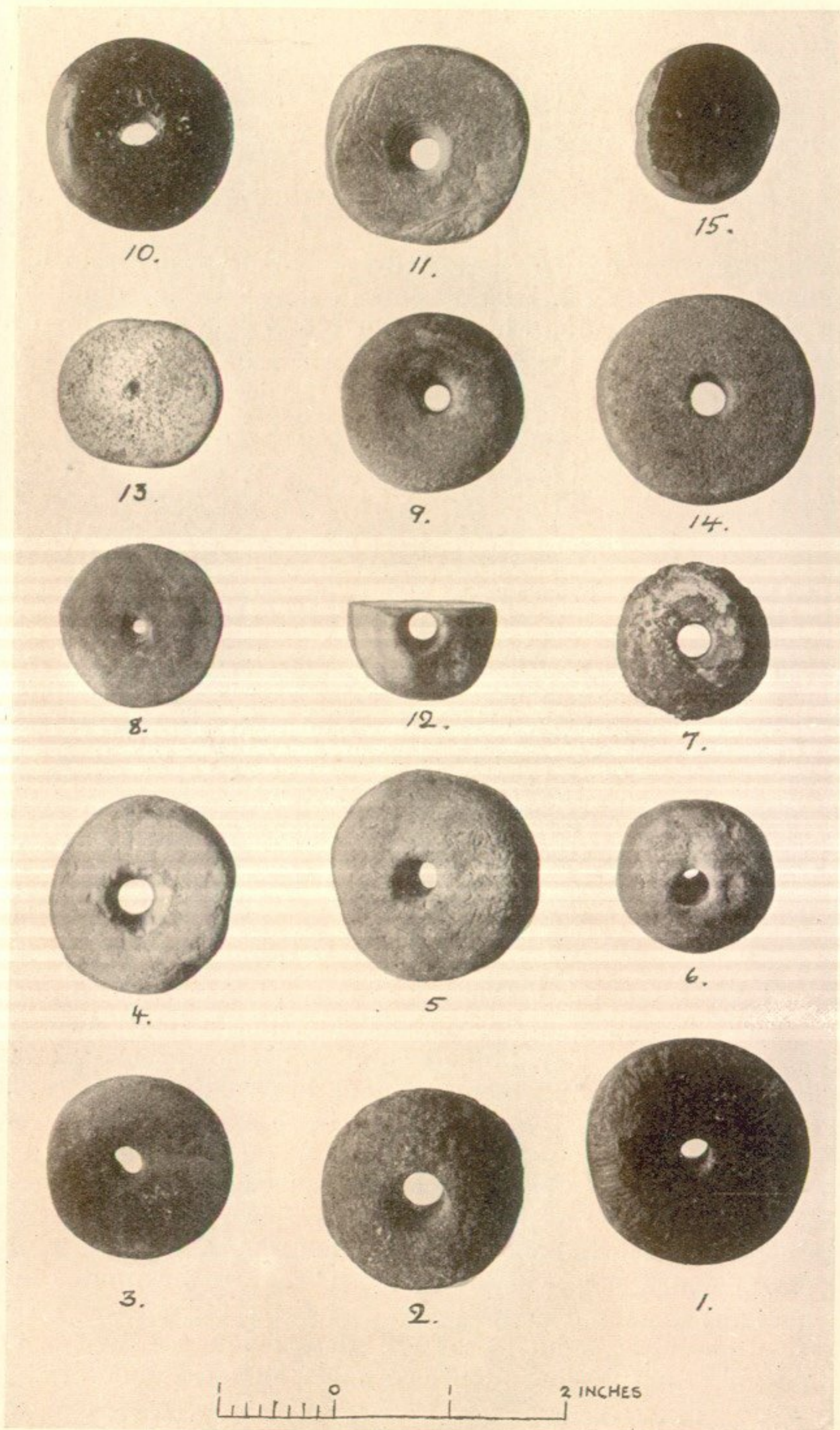


Fig. 22. Whorls.

half moulding. The interior diameter appears to have been about $\frac{3}{4}$ inch. Three fragments of what may have been another spiral ring also came from this level. They are decorated with a series of small notches across one side.

Miscellaneous Relics of Bronze.—A dress fastener (fig. 20, No. 6) with a square head and triangular loop is analogous to one found in 1914.¹ One discoidal harness mounting (fig. 20, No. 7), having a loop at the back, was also recovered. It is undecorated, and measures 1 inch in

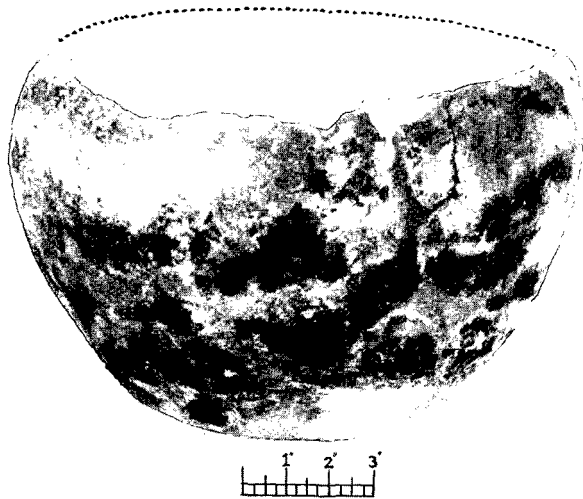


Fig. 23. Large Vessel of Pottery.

diameter. A terret ring (fig. 20, No. 8) is similar in type to one found in 1914.² The extreme diameter of this ring, measuring from outside of knobs, is about $2\frac{3}{4}$ inches. An indeterminate piece of bronze is triangular in section, and measures $2\frac{5}{16}$ inches in length. Portions of a small ring, which is in a fragmentary condition, measure about $\frac{1}{4}$ inch in breadth. The stem of what may have been a rivet is $\frac{3}{4}$ inch in length, and is made of a piece of round wire flattened on two opposite sides. Two portions of a small plano-convex ring in which a hole has been drilled. A piece of bronze wire about $1\frac{1}{8}$ inch in length. A thin plate of metal (fig. 24, No. 2), which has probably been leaf-shaped, terminates in a thin stem which has been bent under it.

Glass.—There are segments of six glass armlets, all of which are triangular in cross section. Three—one being fragmentary—are of

¹ *Proceedings*, vol. xlix. p. 173, fig. 25, No. 8, and vol. lv. p. 186, fig. 21, No. 11.

² *Ibid.*, vol. xlix. p. 181, fig. 32, No. 1.

opaque white, while one (fig. 25, No. 3) is of opaque yellow. The latter has had an interior diameter of $2\frac{1}{2}$ inches. Another large piece amounting to one half of an armlet (fig. 25, No. 1) is of a dark olive-green colour, and is ornamented with hook-like figures of white enamel which are slightly raised above the surface and are placed alternately on each side of the mesial ridge.¹ A small segment of green translucent glass has a rounded mesial ridge consisting of a rope pattern of alternate strands of blue and white opaque enamel (fig. 25, No. 2). Three small fragments of green bottle-glass are of the usual character; one is only

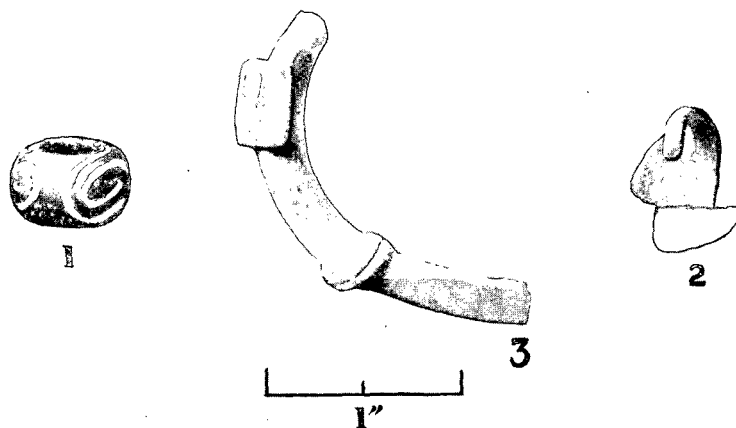


Fig. 24. Glass Bead and two Bronze Objects.

$\frac{1}{3\frac{1}{2}}$ inch in thickness, while the other two pieces are thicker. A bead (fig. 24, No. 1), measuring $\frac{5}{8}$ inch in greatest diameter by $\frac{1\frac{3}{4}}{2}$ inch in breadth, is made of a dark blue paste, and is ornamented with three spirals of whitish opaque enamel.²

Jet.—A segment of an armlet (fig. 26, No. 1) is triangular in cross section, is about $\frac{5}{16}$ inch in breadth, and when complete has measured $2\frac{3}{4}$ inches in internal diameter. A small piece of jet (fig. 26, No. 2) is $1\frac{5}{16}$ inch in length and about $\frac{1\frac{3}{8}}{16}$ inch in width. It has been rounded on both surfaces, on which striæ are visible.

Stone.—A slingstone measures about $1\frac{1\frac{5}{8}}{16}$ inch in diameter. Another, having a finer finish, only measures $1\frac{1}{4}$ inch in diameter. A hone (fig. 21,

¹ An almost identical piece having the same internal diameter was found last year (*Proceedings*, vol. lv. p. 172, fig. 11, No. 22).

² One found in 1919 is of dark blue translucent glass, and is ornamented by a spiral of polychrome opaque glass (*Proceedings*, vol. liv. p. 70, fig. 8, No. 10).

No. 3) measures $3\frac{1}{8}$ inches in length, about $1\frac{1}{4}$ inch in breadth, and about $\frac{3}{8}$ inch in thickness. One end is cut square across, while the other end is slightly rounded. The upper surface gives evidence of considerable use.

Whorl.—Only one whorl (fig. 22, No. 3) is referable to this level. It is made of a fine-grained sandstone, and measures $1\frac{5}{8}$ inch in diameter. The hole is somewhat elliptical, and is not in the centre of the stone.

Iron.—An ox-goad, with the point wanting, is formed of three coils of stout wire, and measures $\frac{1}{8}$ inch in outside diameter.

Bone.—A small fragment of a hollow cylindrical bone handle, split longitudinally, shows a design of chevrons with the alternate angle filled in with transverse lines, all incised (fig. 27, No. 2). A similar and larger piece of bone, possibly a portion of the same handle, was found last year.¹

Pottery.—The pottery from this level consists of a small quantity of shards of several Roman wheel-made vessels, but none seem worthy of comment. The amount of pottery of native manufacture is considerable. One shard, comprising the rim and a portion of the wall of a vessel, is about $\frac{3}{16}$ inch in thickness, and has been well fired. The rim is rounded and slightly everted. Another shard of what has been a large vessel is about $\frac{1}{8}$ inch in thickness.

Coin.—One coin came from this level. It is a denarius of Antoninus Pius (A.D. 138-61).²

We now come to a description of the relics from the fourth level:—

Bronze.—Only a few unimportant objects were recovered from this level. They consist of a thin rod of bronze, measuring $2\frac{3}{8}$ inches in length, which may have been the stem of a pin; a small penannular brooch, fragmentary and in very poor condition; a roll of bronze plate which measures $\frac{3}{16}$ inch in width, and another small fragment.

Glass.—The only relics of glass are two small segments of armlets, one of which is illustrated (fig. 25, No. 4). They are of white opaque vitreous paste, and plano-convex in cross section.

Jet, etc.—A segment of an armlet of jet (fig. 26, No. 3) measures $1\frac{1}{2}$ inch in length, $\frac{9}{16}$ inch in breadth, and is plano-convex in cross section. Another small segment, which only measures $\frac{1}{16}$ inch in length, is slightly more triangular in cross section than the preceding. A third piece is fragmentary and of no special interest. Other objects of jet and shale consist of a segment amounting to almost a quarter of a broad ring of shale, which is $\frac{3}{4}$ inch in thickness. Half a smaller ring of jet (fig. 26, No. 4) measures only $\frac{1}{8}$ inch in internal diameter. One-quarter

¹ *Proceedings*, vol. lv. p. 174, fig. 12, No. 17.

² Cohen², vol. ii. p. 289, No. 172.

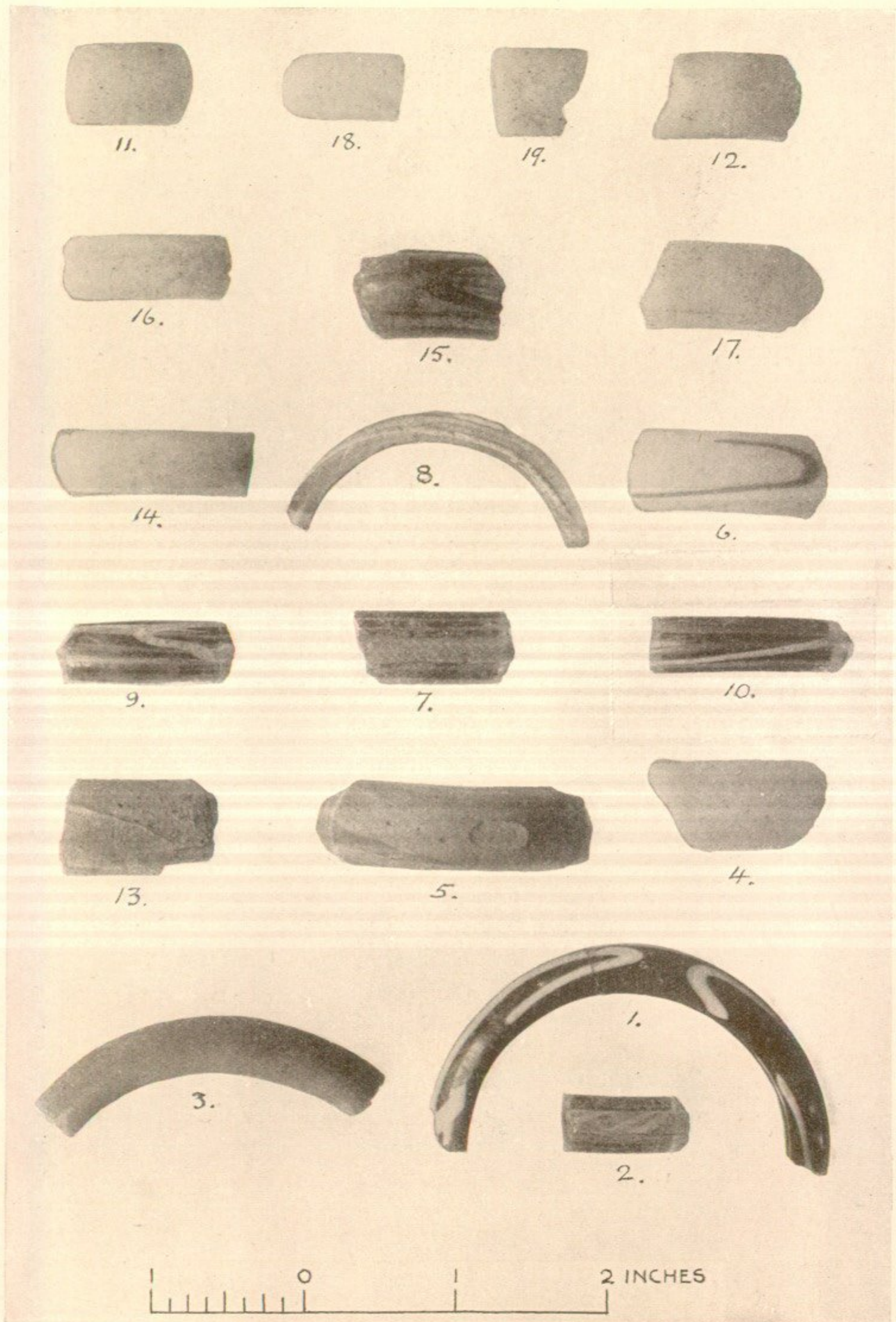


Fig. 25. Fragments of Glass Armlets.

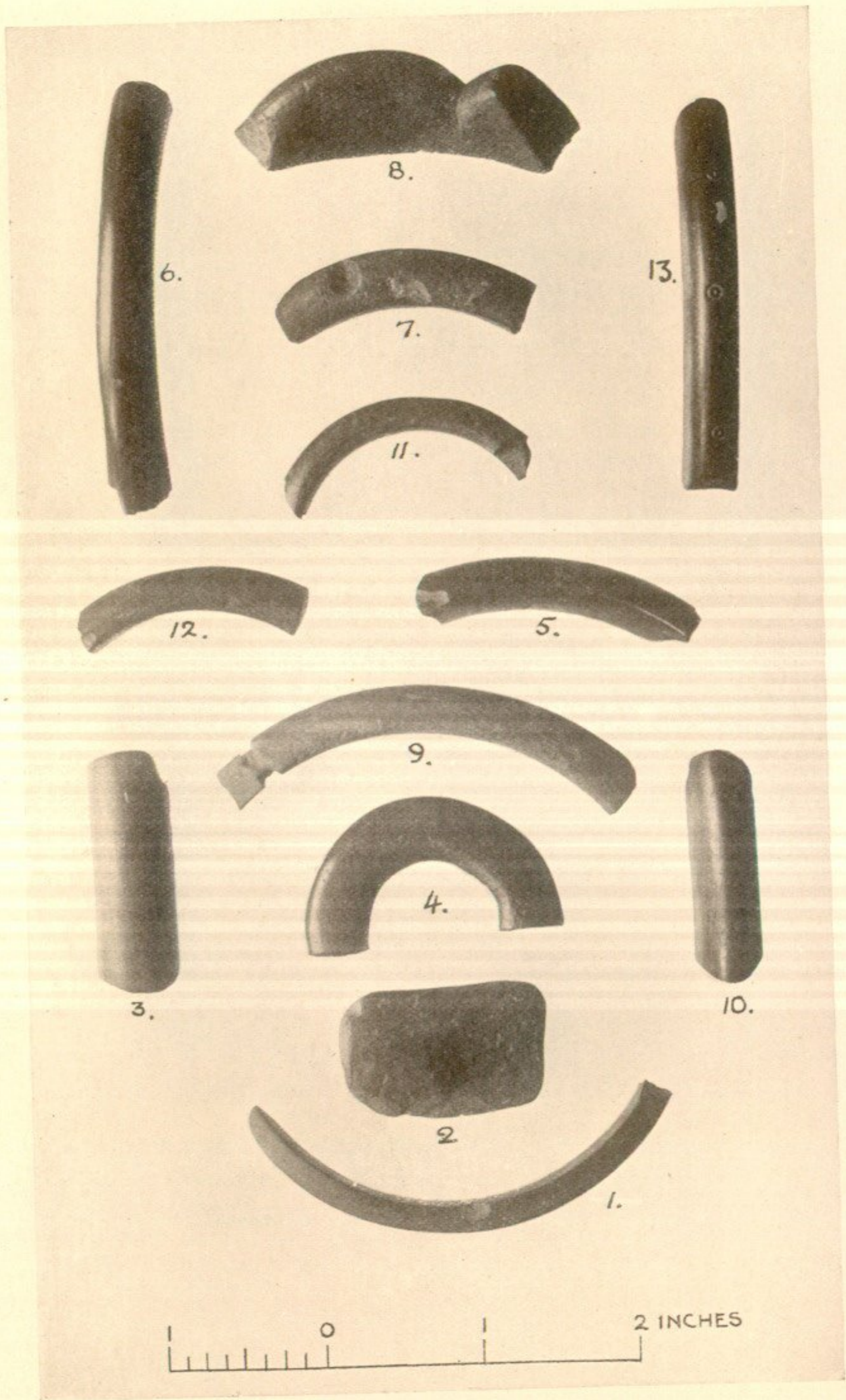


Fig. 26. Fragments of Jet Armlets.

of a pin-head of jet roughly dressed, and a rectangular block of lignite, with rounded corners, which measures $2\frac{1}{2}$ inches in length by

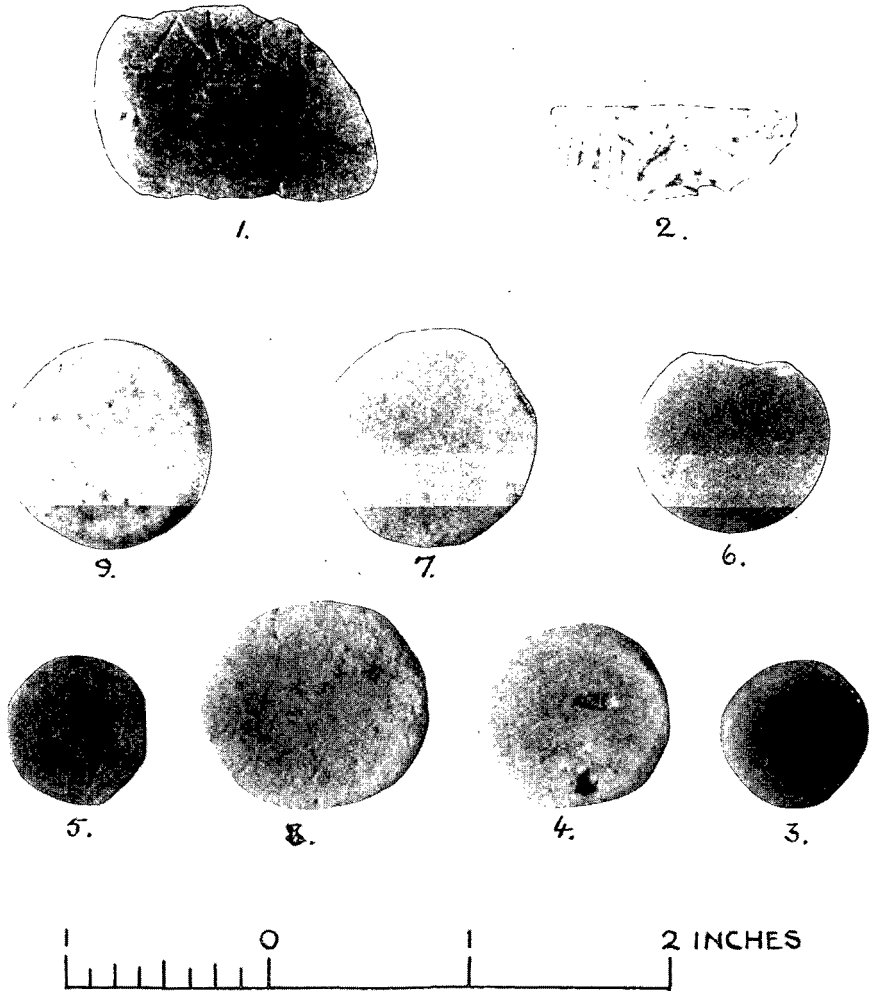


Fig. 27. Inscribed Stone, Bone Object, and Playing Men.

$1\frac{1}{4}$ inch in breadth and $\frac{1}{16}$ inch in thickness, complete the objects recovered under this heading. The latter may have been used for smoothing or polishing purposes.

Stone.—Objects of stone consist of one small slingstone, measuring about 1 inch in diameter, two pounders made from water-worn stones, and one small playing man (fig. 27, No. 3). The latter is of slate.

Whorls.—Three whorls were found, one of stone (fig. 22, No. 4) and two of clay (fig. 22, Nos. 5 and 6). Both the latter are oblate spheroids, and being made of clay are more uncommon than those made of other

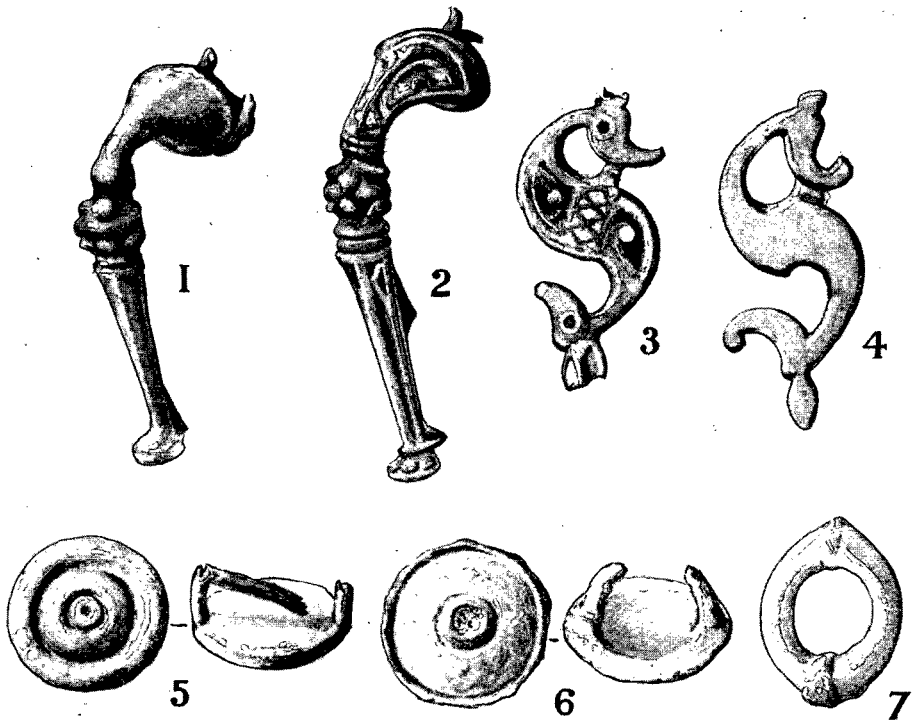


Fig. 28. Fibulae and other Bronze Objects. (1.)

materials. The larger of the two clay whorls measures $1\frac{3}{8}$ inch in diameter. The smaller measures only $1\frac{5}{16}$ inch, and the hole through it tapers from $\frac{1}{32}$ inch at one side to $\frac{5}{32}$ inch at the other side.

Iron.—The iron objects recovered consist only of one-half of a pair of shears, measuring about 7 inches in length; and an indeterminate piece of iron. Under this heading may be mentioned a small piece of hematite.

Pottery.—A considerable quantity of pottery of Roman manufacture came from this level. A number of fragments of a mortarium were

found, and these have now been pieced together and form the greater portion of the vessel. It is $9\frac{3}{8}$ inches in outside diameter at the rim, and is $2\frac{3}{4}$ inches in height. Among other shards of Roman manufacture must be included the following:—One decorated fragment of Samian ware, about 1 inch square, which shows a running rabbit or hare; a small portion of the rim of a bowl ornamented on top with leaves on stalks, *en barbotine*, and several other undecorated pieces; shards of black cooking-pot with lattice decoration; also shards of a grey wheel-made vessel, which is decorated with a faint irregular wavy line bordered by impressed lines which surround the vessel. A number of pieces of a large vessel of reddish-brown colour and coarse texture, measuring about $\frac{5}{8}$ inch in thickness, and one playing-man, measuring $\frac{1}{16}$ of an inch (fig. 27, No. 4). Pottery of native manufacture was fairly abundant, and calls for no comment.

Wood.—Two fragments of wood carbonised through age were found. One piece has been pointed with a sharp tool, the marks of which are still plainly visible. It measures about 2 inches in length.

Relics from the third level are as follows:—

Bronze.—*Fibula.*—A bow-shaped fibula (fig. 28, No. 1), with trumpet head covering a coiled spring, and with pin and catch-plate wanting, is of a type similar to two found in 1919¹ and to one found last year.² It has no ornamentation except a floriated knob in the bow, which is flattened on the under side, and the work is of poor execution. A penannular brooch (fig. 29, No. 11), with rounded terminals, is in very poor condition. A thin plate of bronze, whose use cannot be determined, and two pieces of run bronze (wasters) are also from this level.

Glass.—Eight segments of glass armlets come from this level. One (fig. 25, No. 5) is a complete segment, measuring $1\frac{11}{16}$ inch in length. It is plano-convex in cross section, and measures $\frac{9}{16}$ inch in breadth at the base. It is checked down at both ends so as to reduce the diameter, and is one of the ornamented class of which several were found in 1915, and which were probably connected by a metal mount. The surface is entirely covered, except on the under side, by a bright yellow enamel. This has been crossed obliquely by a tapering line of enamel of a reddish colour. An oval-shaped depression on the mesial line was probably occupied by a similarly coloured material. At one end of the segment a vertical groove is placed, which may have had reference to the metal catch or clasp which joined this segment to another opposite. The interior diameter of this armlet would have been $2\frac{3}{8}$ inches. It is interesting to note that four segments of similar length would not

¹ *Proceedings*, vol. liv. p. 65, fig. 7, Nos. 6 and 7.

² *Ibid.*, vol. lv. p. 176, fig. 15, No. 1.

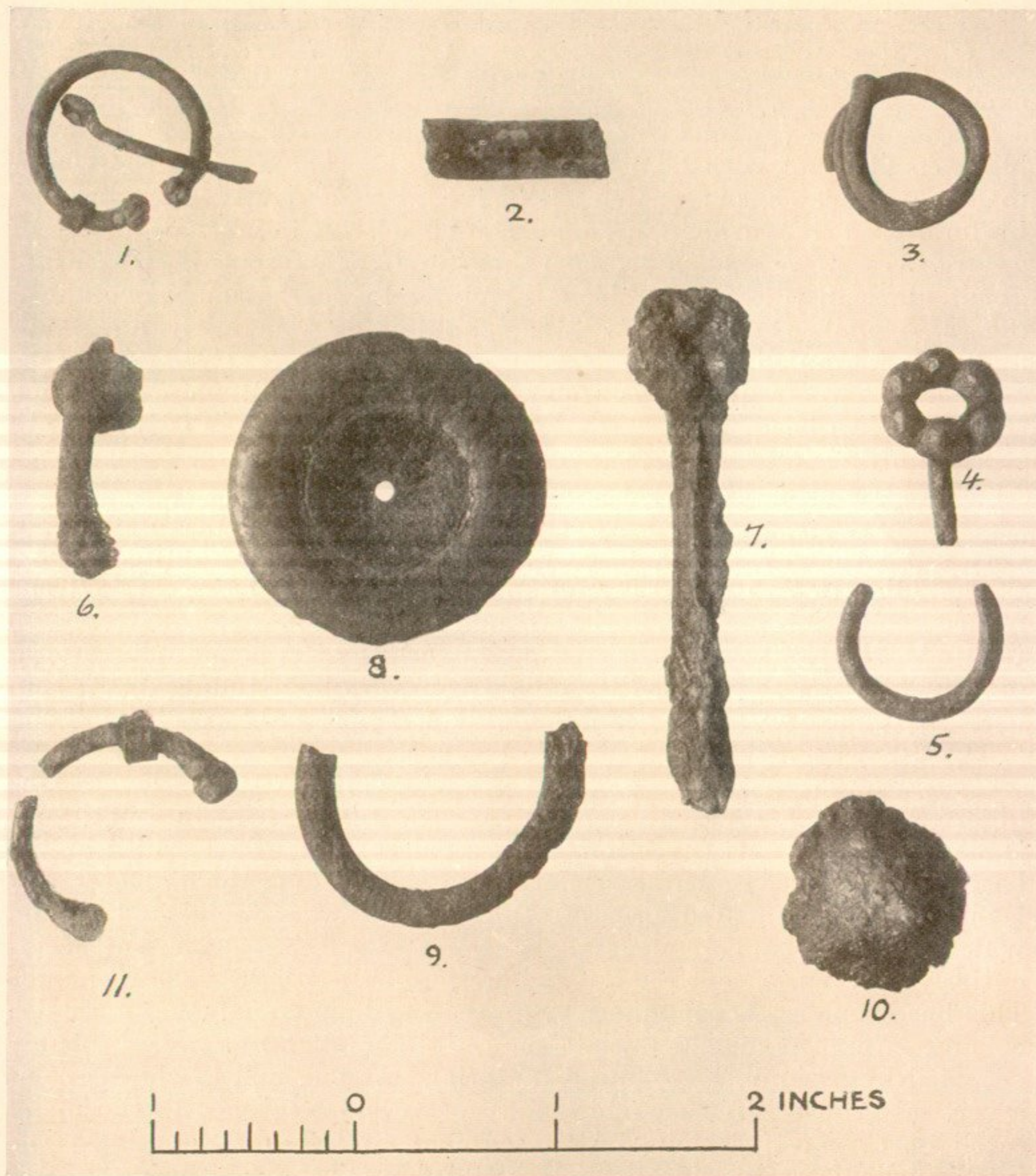


Fig. 29. Objects of Bronze.

complete the circle, a distance of $\frac{13}{16}$ inch being left incomplete. The suggestion, therefore, may be made that a metal mount, measuring about $\frac{3}{16}$ inch, was used to connect three of the segments, while the fourth segment, which may have included a clasp, might well require an additional $\frac{1}{16}$ inch, and this would complete the entire circle. Three segments of opaque white armlets were found; one, of a highly polished paste of a milky-white colour, is undecorated. The other two are of a duller white; one of the latter (fig. 25, No. 6) is ornamented with a hook-like design of pale brown. A small segment (fig. 25, No. 7) is of pale green translucent glass, and is ornamented along the mesial line with a cord pattern of blue and white strands of opaque enamel. Another segment (fig. 25, No. 8), comprising nearly one-half of a small armlet, is of pale green translucent glass. It would only measure $1\frac{3}{4}$ inch in internal diameter when complete, and was possibly for a child. It is decorated with a raised hook-like ornament of white enamel, which has been trailed across the surface. Two other segments (fig. 25, Nos. 9 and 10) of green translucent glass armlets are also decorated with opaque white enamel, and seem to be of a larger interior diameter. The only other objects of glass found were one fragment of dark green translucent bottle-glass and one fragment of white transparent glass.

Jet.—The only jet objects from this level consist of one segment of an armlet (fig. 26, No. 5) which is triangular in cross section, and by analogy, therefore, may be considered earlier than its level implies; and a small fragment which is split longitudinally. There is also a small playing-man (fig. 27, No. 6).

Stone.—Four water-worn stones which seem to have been used as polishers, are of little importance; these and a small playing-man of slate (fig. 27, No. 5) comprise all the stone objects, except whorls, recovered from this level.

Whorls.—There are three whorls and fragments of three others, all of stone. One is dome-shaped (fig. 22, No. 7), and another (fig. 22, No. 8)

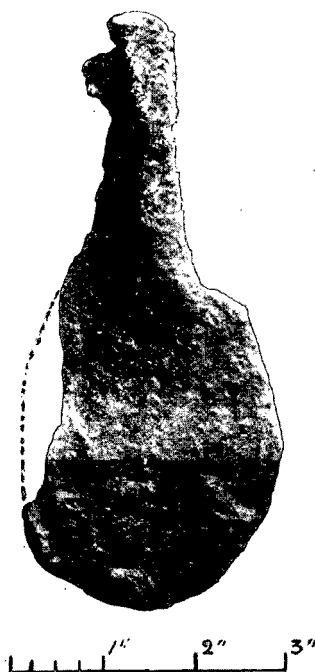


Fig. 30. Iron Hoe.

is of a slaty material; and on one side of the latter is a small incised triangle which has been made approximately in the centre.

Iron.—The greater portion of a hoe (fig. 30), measuring $6\frac{1}{4}$ inches in length; has a rounded blade. From the edge of the blade to the shoulder it measures $3\frac{3}{16}$ inches, and in breadth at the widest part it seems to have measured when complete about $3\frac{1}{2}$ inches. The socket has been formed simply by lapping over both sides of the flat plate at the upper end.

Moulds.—We have a few small fragments of moulds from this level, but they are too indefinite to be worthy of description. A fragment of the core of a clay mould may, however, be mentioned. It is circular in cross section, and is slightly curved.

Pottery.—The pottery consists of a small amount of Roman ware, and only two fragments may be specially noted. One is a portion of the wall of a vessel of decorated Samian ware; the other fragment being the handle of a vessel. It is yellowish in colour, and is of a hard texture. A considerable quantity of pottery of native manufacture is of the usual coarse character, and requires no description.

Coins.—Two coins were recovered from this level. One is a silver denarius of Nero (A.D. 54-68).¹ This coin is in fine condition, and seems to have been little in circulation. The other coin is a second brass of Carausius (A.D. 287-293). The disparity in the dates of these coins brings clearly into prominence the question we have already discussed with regard to the occupation of the ground at different periods. Nevertheless, there is a possibility that the former coin occurring on a relatively later level may be purely fortuitous.

Relics from the second level are as follows:—

Silver.—A small stud of silver with a rounded head, and a stem which measures about $\frac{3}{8}$ inch.

Bronze:—Fibula.—A small penannular brooch (fig. 29, No. 1), which has fluted terminal knobs and a broken pin; it measures $\frac{1}{8}$ inch in external diameter.

Pins.—The head of a pin (fig. 29, No. 4), of a type with which we are now familiar, with six balls flattened on the back. The pin is broken, and only $\frac{3}{16}$ inch remains. The stem of another pin which is slightly bent, and measures $1\frac{7}{8}$ inch in length.

Finger Rings.—A spiral finger ring (fig. 29, No. 3), which appears to be nearly complete, formed of a coil of wire. It is thickened at one end, which is encircled with a number of incised grooves. The interior diameter is about $\frac{5}{8}$ inch.

Miscellaneous Relics of Bronze.—A small ring, which is incomplete

¹ Cohen², vol. i. p. 288, No. 21.

(fig. 29, No. 5), and measures $\frac{13}{16}$ inch in exterior diameter. A thin plate of bronze, of indeterminate use, measuring $1\frac{1}{8}$ inch in length.

Glass.—The only piece of glass worth noting is a triangular portion of the side of a vessel. It is of schmelze glass, and is $\frac{5}{32}$ inch in thickness at the rim. Below this for a distance of $\frac{1}{2}$ an inch the glass has been ground, giving the appearance of a dull band which apparently encircled the vessel. Beneath this a moulded ornamentation extending downwards has been left clear. Two small fragments of Roman glass vessels are of a pale green colour.

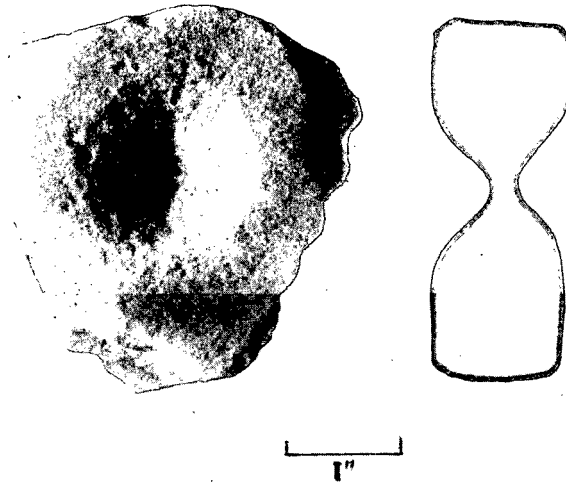


Fig. 31. Stone with Hollows on sides.

Jet.—A large segment of an armlet (fig. 26, No. 6), which is plano-convex in cross section, and measures $3\frac{1}{8}$ inches along the mesial line. When complete the armlet would have measured 3 inches in internal diameter. A small segment (fig. 26, No. 7), which is triangular in cross section, and measures $1\frac{1}{4}$ inch along the mesial ridge. At one end it has been bevelled away from one side to a point. Here a hole has been sunk on both sides, but the two holes do not correspond in position. This is apparently another example of the method employed for joining two segments together.

Stone.—Only two objects of stone other than whorls were recovered from this level. One (fig. 31) is a roughly triangular flat piece of red sandstone, which measures $3\frac{1}{8}$ inches in length, $3\frac{1}{8}$ inches in breadth, and $1\frac{5}{16}$ inch in thickness. On both faces conically shaped depressions

have been picked out. On one side this depression measures about $1\frac{1}{2}$ inch in diameter, while on the other side the depression measures only $1\frac{3}{16}$ inch. Stones, usually water-worn pebbles, with similar depressions on both sides are well known, but these are referable to a much earlier period than the one with which we are dealing. It is possible, therefore, that this stone object may not belong to the period of the occupation referable to this level. The second object is a small flat oval water-worn stone, which shows polishing on one side.

Whorls.—Two whorls of sandstone, both neatly made. The larger measures 2 inches in diameter, and the smaller (fig. 22, No. 9) $1\frac{9}{16}$ inch.

Iron.—Only two pieces of iron are worth recording. One (fig. 18, No. 2) is the point of a sword, which measures $4\frac{7}{8}$ inches in length and $1\frac{5}{8}$ inch in breadth at the point of fracture. The other object is indeterminate, and measures $4\frac{5}{8}$ inches in length, is circular in cross section at one end and rectangular at the other.

Mould.—A fragment of a mould (fig. 14, No. 2), measuring nearly 3 inches in length and $2\frac{1}{4}$ inches in greatest breadth; it is possibly a portion of the mould for the bronze sword, the matrix for the hilt of which was found on the level below. In this case we again have an example of the reinforcing principle which has already been noted. A hole, which is tapering, measures $\frac{7}{32}$ inch in diameter at one end and about $\frac{5}{32}$ inch at the other end, and penetrates the mould longitudinally in the centre immediately below the matrix.

Pottery.—The fragments of pottery, both Roman and native, are of little consequence. One shard of Roman pottery is of a greyish-white paste, the inside being covered with a dark grey slip, while the outside is covered with a red slip and is ornamented with rows of indentations made with a pointed stick. The pattern has apparently encircled the vessel. Two fragments of a grey ware of hard texture seem to be part of a vase. A portion of the base and wall of another vessel is of very thick reddish-brown paste. The interior has been rounded, while the exterior of the base is flattened.

Coin.—Only one coin came from this level. It is a second brass of Antoninus Pius (A.D. 138-161).¹

A description of the relics found on level 1^a is as follows:—

Pin.—A bronze pin, with head wanting, measuring $1\frac{1}{2}$ inch in length.

Miscellaneous Relics of Bronze.—A tubular object (fig. 29, No. 2), measuring about $1\frac{5}{16}$ inch in length and $\frac{9}{32}$ inch in outside diameter. It is formed of a piece of metal plate rolled and overlapping. Several small indeterminate fragments and one piece of run metal, "a waster," were the only relics recovered under this heading.

¹ Cohen², vol. ii, p. 282, No. 117.

Glass.—A small fragment of an opaque white glass armlet, plano-convex in cross section, and decorated with a line of brownish enamel which commences on the mesial line and extends in V shape along both sides of it; half a small bead of blue glass measuring $\frac{7}{32}$ inch in length, and broken longitudinally. Only three fragments of Roman glass were found. One a rectangular piece of thick glass of a dark green colour, of peculiar shape and indeterminate purpose. It measures $1\frac{3}{8}$ inch in length by 1 inch in breadth. A small fragment of pale green glass, convex on the outside and concave on the inside. The third fragment merits no description.

Jet.—A portion of a curved object (fig. 26, No. 8), lobate in form, measuring about $2\frac{3}{8}$ inches in length and $\frac{7}{16}$ inch in thickness. A small fragment of an armlet, split longitudinally, measuring $\frac{15}{16}$ inch in length.

Stone.—The objects of stone recovered, other than whorls, consist of a well-made whetstone, measuring $4\frac{7}{8}$ inches in length; a disc of coarse-grained sandstone, possibly a pot-lid, roughly circular, and measuring about $4\frac{3}{8}$ inches in diameter and about $\frac{9}{16}$ inch in greatest thickness; another stone (fig. 21, No. 8), having two rounded and two straight sides which are not parallel, of fine-grained sandstone, and measuring about $\frac{3}{8}$ inch in thickness, which has probably been used as a sharpening stone; and a small playing-man (fig. 27, No. 7), made of fine-grained reddish sandstone, measuring about $1\frac{1}{8}$ inch in diameter.

Whorls.—A whorl of jet (fig. 22, No. 10), measuring $1\frac{1}{8}$ inch in diameter; another of stone (fig. 22, No. 11), measuring $1\frac{3}{16}$ inch in diameter; a third, made from a piece of Samian ware, measuring $1\frac{1}{2}$ inch in diameter; a shard of pottery roughly fashioned into circular form, with a small hole bored from the inside of the shard. On the outside the fragment has been roughly chipped as though in preparation for the drilling of the hole from that surface.

Iron.—A mass or bloom of iron, which is convex at the base, measuring about $4\frac{1}{4}$ inches in diameter by $1\frac{5}{8}$ inch in depth.

Mould.—No moulds were recovered, but an object slightly curved, which appears to be the core of one, and measures $1\frac{3}{8}$ inch in length.

A number of fragments of a crucible which seems to have been of moderate dimensions were found.

Pottery.—Several fragments of Samian ware, including two small pieces showing decoration, came from this level; but none requires special notice. Other shards of Roman pottery consist of a fragment of the rim of a vessel measuring $1\frac{1}{2}$ inch in length. It is of hard texture, is well fired, and of a reddish-brown colour. The exterior shows a small amount of decoration, applied in diagonal lines in a slightly darker

colour. Several fragments of cooking-pot and one rim, measuring about 4 inches in length, may be noted. The latter may be a portion of a dish or bowl. It is made of a greyish paste which is covered both outside and inside with a darker coloured slip.

A quantity of pottery of native manufacture presents no features of special interest.

Relics from the top level are, as usual, sparse, but include the following:—

Glass.—Two fragments of opaque white glass armlets (fig. 25, Nos. 11 and 12), plano-convex in cross section; a small bead of a deep blue colour, measuring $\frac{1}{4}$ inch in outside diameter, pierced with a large hole; one small fragment of thin, clear, pale green glass with two narrow mouldings which appear to have converged; and three fragments of Roman bottle-glass of the usual green colour.

Lignite.—A small fragment of lignite which may be a portion of an armlet.

Stone.—One oblate stone, whose purpose is not apparent, measuring about $1\frac{7}{16}$ inch in diameter, and two playing-men, are the only objects of stone from this level.

Pottery.—A few pieces of Roman pottery of no special interest; fragments of vessels of native manufacture, of the usual coarse character. Only one shard need be mentioned. It is a portion of a small vessel extending from rim to base, and measures about $1\frac{3}{4}$ inch in height; when complete the vessel would have measured approximately $2\frac{9}{16}$ inches in inside diameter. The paste is coarse, and contains many small stones.

Having now described sections H^a and M, together with their accompanying relics, we shall proceed to describe sections N and O, which, it will be remembered, adjoin section M on the north. As has been already mentioned, we have reverted to the old method of removing the soil in four levels, which are, of course, more or less arbitrary.

The turf and underlying soil having now been removed to a depth of 14 inches, the top level of occupation was revealed (fig. 32). One of the most important features exposed was a well-defined roadway, which crossed the section diagonally from the south-west corner towards the north-east corner. On the south-east side this roadway was bordered for the most part by a single line of large rough hill-stones, while on the north-west side large stones were also found, but these did not present the same regularity of alignment. The width of the road varied slightly, but might be taken to average about 8 feet. This roadway appeared to be a continuation of the road found last

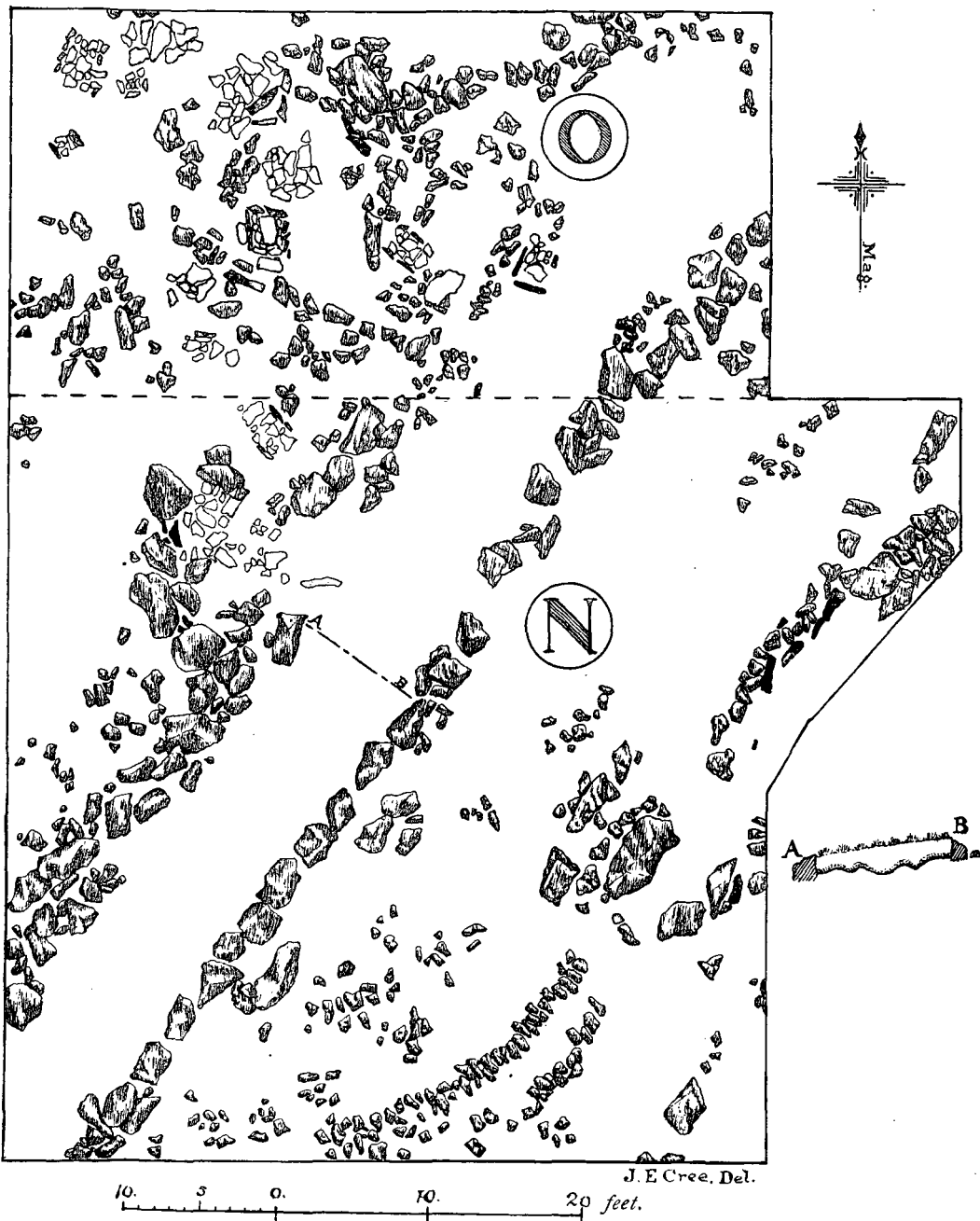


Fig. 32. Plan of Foundations and Section of Road on the first (highest) level of sections N and O.

year crossing sections J and K, but which was not apparent in the intervening section L.

The north-west or lower side of the road now mentioned had been made up to an approximate level, and the entire surface was covered with small rubble. At a point about midway along the line of this road a cross section was cut (marked AB on plan), and this revealed the wheel ruts, together with a central depression which had been the track of the horse or bullock. These depressions were obvious by reason of the rubble having been pressed down by the weight of the cart and animal, and thereafter filled up with a fine silt. The distance from centre to centre of these ruts measured 4 feet, and it is interesting to have been able thus to establish the span between the wheels. Subsequently cross cuts were made at one or two other points, and these confirmed the details mentioned. That this roadway was referable to a period towards the last occupation is undoubted, but an incomplete hearth, which impinged on the roadway on the half-section marked O, together with a crescentic formation of rough stones laid across it at the extreme north-east angle of that section, proved that a brief occupation of the site had occurred at a period when the roadway had been abandoned. This fact suggests a reason for our not being able to trace the roadway through section L last year. Beneath it, as will be seen later, levels were found of the second, third, and earliest occupations.

The structural remains on the south-east side of this road were unimportant. In the south-east angle, emerging from the previous section, a double alignment of stones was found to extend for some distance towards the north-east. The stones here were carefully laid, and in one place on the lower side for a distance of about 8 or 9 feet dry building of two courses was noticed. Between these two lines mentioned was a space which was devoid of stones, and the assumption is that these formed the foundation of a turf wall. Still further to the north-east appeared what may have been a continuation of this wall, but here for some distance stones were only laid on the north-west or lower slope. Several of these were found set on edge, and, as usual, they are indicated on plan in black.

Turning now to the north-west angle of the section, what appears to have been a small circular dwelling was found. This was partly surrounded by large rough stones, and the floor area was roughly paved with flat slabs. What seemed to have been the entrance to the dwelling was noticed on the north side, and this measured 1 foot 2 inches in width. The south side did not appear to have been protected by large stones, but it is suggested that the reason for this may have been the fact of the dwelling being sheltered in that direc-

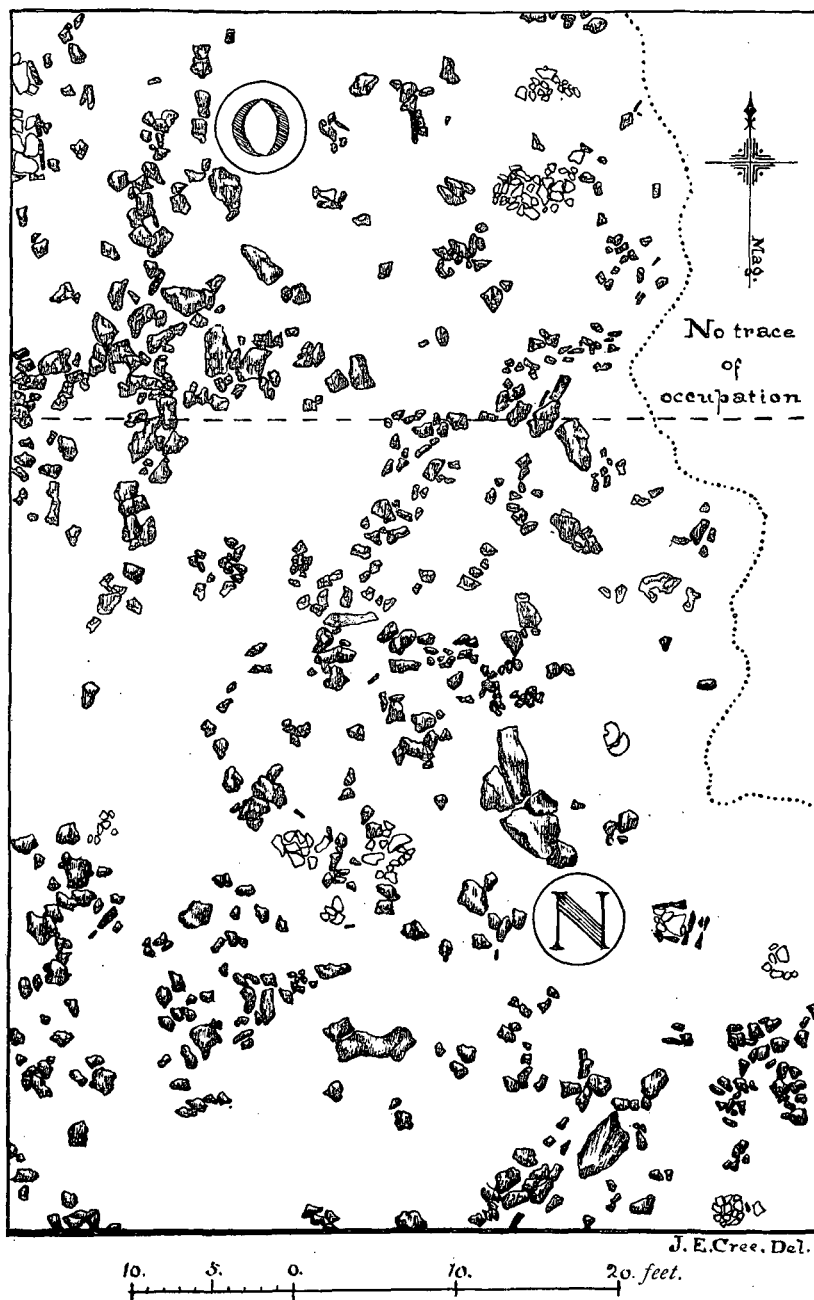


Fig. 33. Plan of Foundations on the second level of sections N and O.

tion by the rising hill. About 3 feet to the north from what has been suggested as the entrance was found a rectangular hearth, imperfect, but of the usual type, and orientated north-west and south-east.

Continuing into the half-section O, the hearth which was found impinging on the roadway may once more be noticed. Its orientation was north-east and south-west, the open end being towards the north-east. It was incomplete, but had been paved and kerbed in the usual manner. A few feet to the west of this lay another incomplete rectangular hearth, whose orientation was north-west and south-east, and a large paving-stone lay a foot to the south-east of this. About 7 feet west of this hearth a fairly large hearth, of almost square formation, was revealed. It was well paved, and had kerbstones on the north, west, and east sides. The south side had been left open, and here was placed another large flat slab of paving.

A line of rough stones, commencing at the roadway, was placed diagonally in a north-westerly direction, and, extending for over 20 feet, passed close to the south of the hearth. Surrounding the latter and the paved area above described a number of stones had been laid, some rough and some on edge, which, with the diagonal line of stones mentioned, formed a small enclosure. Lying close against the south-west side of this diagonal alignment of stones another small area of paving was found, and within a few feet to the south of this lay another incomplete hearth. In the angle formed by the north and west lines of the section three incomplete hearths and one paved area were brought to light, while yet another piece of paving lay a few feet towards the south-east, and against the stones forming the enclosure to which we have already alluded.

The soil and structure of the top level having been removed, the second level was laid bare about 6 inches lower down (fig. 33). A small portion of section N towards the north-east showed no trace of occupation, and this continued and slightly increased in the half-section O adjoining N on the north. Large masses of stones were scattered over the entire surface, but few structures were observed. At the extreme south-east corner of the section a small circular hearth was found with only one kerbstone in position. About 15 feet north of this another incomplete hearth was noticed, only represented by a few paving-stones, and 4 feet to the north-west of the latter what appeared to be the remains of two hearths—one superimposed on the other—were brought to light. Towards the centre of the section the remains of two other hearths in a ruinous condition were discovered, also a small paved area lying to the west of these. About 10 feet to the west of the paved area mentioned, and close to the west line of the section, lay another

ruinous hearth. Two half quern stones were found in the position indicated on the plan, close to the unoccupied zone on the east side of the section, but these call for no comment. Towards the north-west corner of the section, and running due north for some distance into section O, a setting of rough stones was laid bare, while another similar setting crossed these at right angles in an east-and-west direction. Against the west section line, and only partly exposed, a well-formed rectangular hearth was found. It was orientated north and south, and its open end was towards the north. Two feet still further north what may have been another hearth was observed, but this was only represented by one kerbstone and three paving-stones. Near the centre of the section an incomplete hearth was brought to light, but it only consisted of three kerbstones and one paving-stone. Towards the east of the section lay a fairly large paved area, while about 4 feet due north of this a small triangular piece of paving was discovered.

The third level (fig. 34) was found, as usual, at a depth of several inches below the second. The unoccupied area on the north-east side increased in size both in sections N and O. A considerable number of stones were found scattered over the surface of the occupied portion, but these were not so numerous as in the level immediately above. About 3 feet from the south line, and midway between the east and west lines, a small circular paving, which may have been a hearth, was laid bare. Almost adjoining this on the south was found a small square structure. Stones on edge were placed on three sides of it, the fourth side being devoid of any. This may possibly have been a post-hole. Close to the east line of the section, and about 15 feet from the east corner, an incomplete hearth, represented only by paving-stones, was discovered; while slightly to the north-west of this the remains of another hearth and a few paving-stones were noticed. On the south-west side, not many feet from the south-west corner, a number of rough stones were found, set in crescentic formation, but their purpose was not evident. Almost in the centre of the section a small square enclosure was observed, completely surrounded by stones set on edge. The space in the centre only measured about 8 inches square, and it seems probable that this, which was one of the most complete enclosures encountered, was made to contain a post. To the north-west of this an incomplete hearth was found, consisting merely of paving-stones; while adjoining this to the south and west lay a few flat slabs. About 3 feet to the north-east lay another hearth, also incomplete, and represented only by four flat paving-stones. A large stone set on edge lay about 2 feet north-east of the latter, and this was bordered on the east and north by rough stones. Still

further towards the north-east, and close to the north line of the section, a row of smallish stones was found running into section O for a distance of about 15 feet. Several of these were set on edge, and this alignment seemed to have been placed bordering the unoccupied zone. To the south and west of section O lay two or three other groups of rough stones, while in the north-west angle of the section a well-made rectangular hearth was uncovered. It was neatly paved, and kerbed on the south, east, and west sides, while the north side was left open. Its orientation was north and south. This hearth lay in an area of clay some 2 or 3 inches in thickness. To the north were found three paving-stones, while to the south of them two small structures were observed, again suggesting post-holes. One or two similar structures were noticed at different points in the section. Slightly to the east of the centre lay a small roughly circular piece of paving, and a few more paving-stones were encountered at the north-east angle of the occupied zone.

Removing the soil and structure from the third level, the fourth level of occupation was reached a few inches beneath (fig. 35). Taking sections N and O together, nearly one-half of the entire area was devoid of any evidence of occupation. Near the south-west corner of section N some paving was found, and another bit of paving was laid bare close to the north line of the section and about 15 feet from the north-west corner. Several stones of considerable size, set on edge, were noticed about 14 feet south-east of the last-mentioned paving, but their purpose was not apparent. Rough stones and others set on edge were found in both sections, but it was impossible to determine what purpose they had served.

Following the practice which we have adopted in the past, we shall commence by describing together the relics from sections N and O conversely to the description of the levels. A slight digression, however, may be permitted, as a few relics of the Neolithic and Bronze Ages were found, and these will be taken first, as obviously they are referable to a time many centuries before the succeeding occupations with which we have to deal.

On fig. 9, No. 4, is shown a polished stone axe, which measures $3\frac{1}{2}$ inches in length. The cutting edge is nicely rounded, and measures about $1\frac{3}{8}$ inch across. The only other implements referable to this period are two flint scrapers of a dark brown colour, one of which is illustrated on fig. 10, No. 6, and one small instrument of chert.

We shall now deal with the later relics which also came from the fourth level, and these are as follows:—

Bronze.—About half of a penannular brooch, together with a part

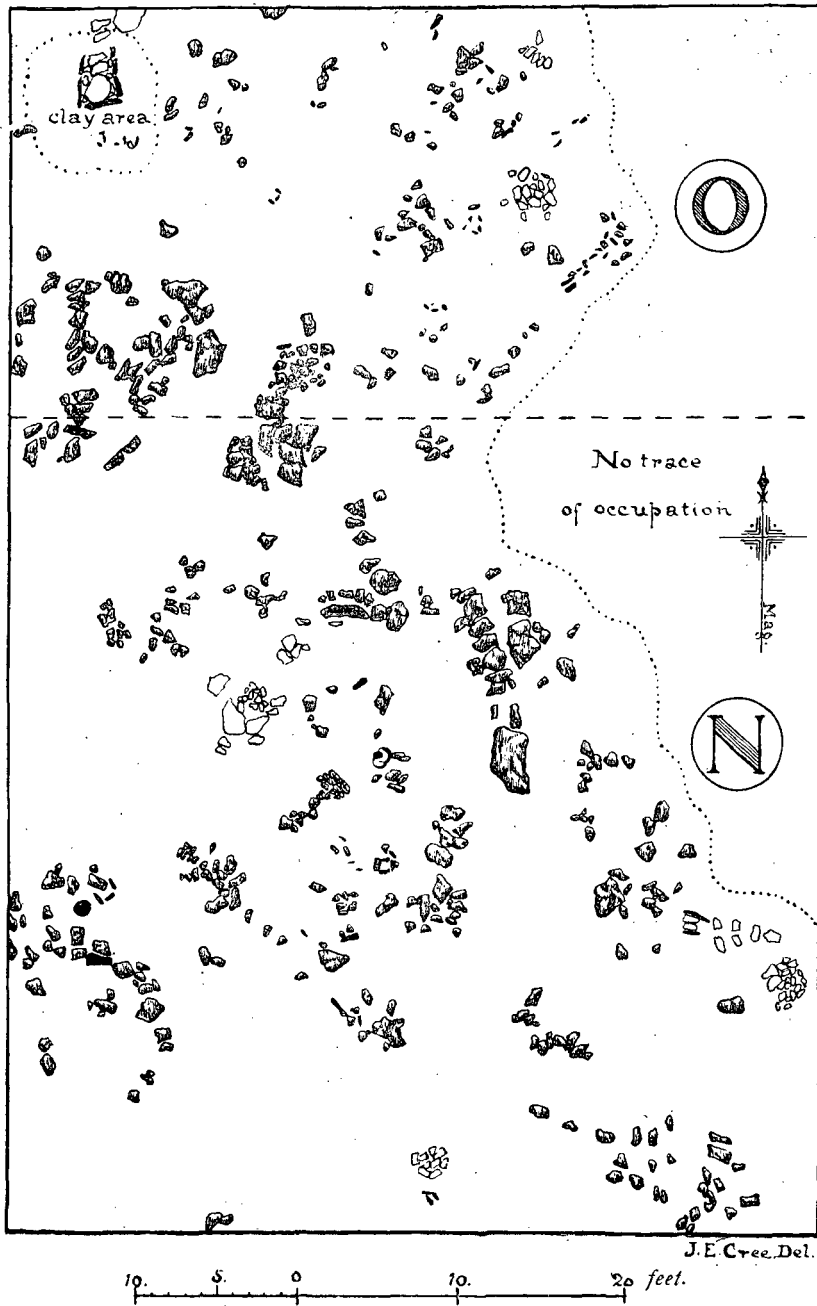


Fig. 34. Plan of Foundations on the third level of sections N and O.

of the pin. The terminal has been formed simply by flattening the end of the head and bending it backwards.

Glass.—Two segments of glass armlets. Fig. 25, No. 13 is of the highly decorated type, an example of which came from the third level, section M, and was described on p. 233. This segment, which is broken, is only about 1 inch in length. The core is of translucent green glass, and the upper surface is entirely covered with a coating of enamel. A broad reddish band runs obliquely across the top, and this is bordered on both sides by bright yellow. A small fragment of opaque white glass has been decorated with a line of pale blue, but only traces of it remain, as the surface has been badly chipped.

Jet and Lignite.—Seven segments of armlets. One, however, is only represented by a longitudinal section. The largest segment (fig. 26, No. 9) measures 3 inches along the mesial ridge. At one end a shoulder is left, $\frac{3}{16}$ inch in breadth, behind which a shallow groove $\frac{3}{32}$ inch in width encircles the segment. The purpose of this groove has apparently been to facilitate the joining together of this segment with another. When complete this armlet would have measured about $3\frac{1}{16}$ inches in diameter. The other segments, of which one is shown in fig. 26, No. 10, warrant no special description.

Stone.—A large quartzite pounder, of a size convenient to hold in the hand, much abraded all round its circumference; a small squared fine-grained stone, measuring $2\frac{3}{4}$ inches in length, which has been used as a hone; a water-worn stone, $5\frac{7}{8}$ inches in length, showing friction marks on two sides as though made by a cord; another water-worn stone, having a rounded end, which has apparently been used as a polisher, but which also shows marks of abrasion on its surface. A small slingstone completes the list; it measures only $1\frac{1}{16}$ inch in diameter.

Whorl.—One whorl made of lead; it measures $1\frac{7}{32}$ inch in diameter.

Iron.—A fine iron socketed leaf-shaped spear-head (fig. 18, No. 6), with a midrib on one side extending to the point. On the other side the midrib is entirely corroded away. The spear-head measures $5\frac{1}{4}$ inches in length and $1\frac{7}{16}$ inch in breadth across the widest part of the blade.

Moulds.—Several fragments of clay moulds; the largest of these, measuring $2\frac{3}{4}$ inches in length, has apparently been fashioned for the casting of a blade. The method employed in making this mould is clearly visible. It is composed of two parts, the outer jacket being made of a paste in which there is a considerable mixture of coarse sand, while the inner layer is about $\frac{1}{4}$ inch in thickness, and is composed of a very fine clay, on which there is a slight film as if a slip had been applied. The two portions have then apparently been fired together.

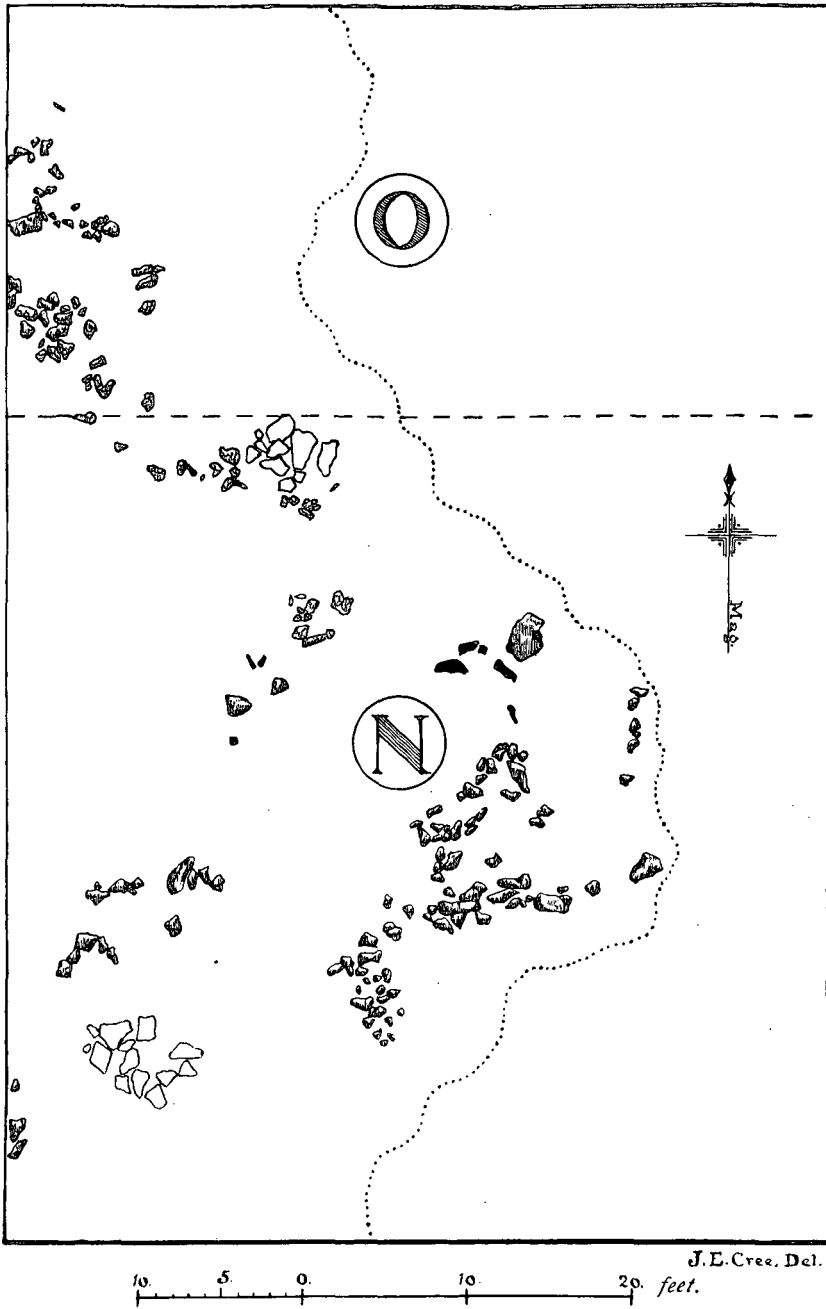


Fig. 35. Plan of Foundations on the fourth (lowest) level of sections N and O.

The purpose of this method was probably to give additional strength, and to minimise the chances of the mould cracking when the molten metal was introduced. Two fragments of another mould, one of which is slightly bell-shaped, with a series of seven corrugations (fig. 14, Nos. 6 and 7). Another fragment is worthy of notice (fig. 14, No. 3), as there is a perforation measuring $\frac{3}{16}$ inch in diameter penetrating it, as in the case of the fragments of the mould for the Bronze Age sword previously described.

Pottery.—The Roman pottery from this level was of small importance. A few shards of Samian ware, a similar amount of black cooking-pot, and a few fragments of a thin well-fired vessel of hard texture and having a buff-coloured exterior, were recovered. In addition to these we found several fragments of a mortarium, and one or two shards of coarse-grained red ware. The base and part of the wall of one native-ware vessel may be recorded. It is of the usual rough texture, the paste containing many small stones. In exterior diameter the base measures $4\frac{3}{8}$ inches, and at the highest part the wall now measures about 3 inches. Many other shards of native manufacture of the usual coarse character were found, but no description seems necessary.

Coin.—Only one small specimen, unidentifiable, but apparently belonging to the fourth century.

Relics from the third level will now be described:—

Bronze:—Fibulae.—We have three fibulae from this level—one bow-shaped and two dragonesque or S-shaped. These are fine examples of the art of the Late Celtic workman. The first mentioned (fig. 28, No. 2), which has pin and catch-plate wanting, is a finely modelled specimen, and has been beautifully enamelled. It measures $2\frac{1}{16}$ inches in length. The head is trumpet-shaped, and on both sides of a mesial line are semicircular compartments containing blue enamel, placed on a ground possibly of red, while further up the head are two small triangular compartments filled with yellow. A well-executed floriated knob occupies the centre, while on either side of the foot are small spaces in some of which there is still a trace of what appears to be red enamel. The terminal at the foot of the brooch is circular, and a space here has also been filled with enamel.

A fine example of a dragonesque brooch (fig. 28, No. 3), which is richly enamelled, measures $1\frac{5}{8}$ inch in length. The usual ear-shaped projection at the top of the head is missing, and the curved snout has lost the knob at the end. The eye has been of blue enamel, which has been surrounded by a ring of yellow. An oblong design crosses the centre of the body, and this is divided into a series of compartments. Three in the centre are lozenge-shaped and are filled with yellow enamel,

while bordering these on both sides are triangular spaces which have been filled with a different colour, possibly red. On both sides of this central band are larger compartments, which follow the curve of the body towards both ends. In the centre of these is a trumpet-shaped device of bright blue, which partly encloses a circular spot of yellow, and the whole has been placed upon a ground possibly of red—the latter enamel, however, has lost its colour. The head at the end furthest from the hinge of the pin has also lost a portion of the snout and terminal knob, but the ear-like projection is almost complete. The eye is again of blue enamel, surrounded with yellow, and spaces filled with enamel are placed on both sides of the raised projection in the centre of the ear.¹ Portions of the pin were found, but these are fragmentary.

The second (fig. 28, No. 4) is an S-shaped fibula, and measures $1\frac{1}{16}$ inch in length. The pin is wanting, and the brooch is entirely devoid of ornamentation.² Dragoneseque or S-shaped fibulæ which are unenamelled are more unusual than the other class, and this is the first example which we have found on Traprain Law.

Miscellaneous Relics of Bronze.—Two bronze buttons or strap ornaments (fig. 28, Nos. 5 and 6), of approximately the same size but differing in design, and both having loops at the back, were found on this level. One measures $\frac{7}{8}$ inch in diameter, while the other is slightly smaller, and both show traces of enamelling in the centre. No. 6 is very similar in type to another found in 1919, which has been given a Bronze Age attribution.³ The present example, however, being enamelled, shows a persistence of the type from the earlier period. Fig. 28, No. 7, the head of a dress fastener, is unlike any so far recovered from Traprain. It suggests the well-known boss and petal design; but in this instance the boss has been omitted, a hole being in its place. The loop has been attached by a shank to the under side of the head, and there is a raised knob on the upper side, possibly to simulate the head of the shank protruding and being riveted through the metal. A ring of bronze wire, fragmentary and in frail condition, which has measured about $1\frac{3}{8}$ inch in

¹ Fragments of two similar brooches were found at Traprain in 1914 (*Proceedings*, vol. xlix. p. 169, fig. 24, Nos. 1 and 2); and one nearly complete and the greater portion of another came from the lowest level in 1919 (*Proceedings*, vol. liv. p. 65, fig. 8, Nos. 2 and 3). Further references will be found *op. cit.* Another is described by Thomas May in *The Roman Forts of Templebrough* (p. 71, pl. xiv., No. 1).

² Two examples of undecorated S-shaped fibulæ are noted in the list at the end of the 1918 report on the *Excavations of Corstopitum*, p. 117. No. 8 of that list refers to one found at Lakenheath, Suffolk; but this, while not enamelled, is ornamented with two trumpet-shaped devices in the centre; it is illustrated in the *Reliquary* for 1907, p. 62. No. 13 of the Corstopitum report, found at South Shields, though not enamelled, has no similarity to our example. No. 16 of that report, which is also illustrated in the *Reliquary* for 1907, p. 63, from Watercrock, Westmorland, has a distinct similarity of design to ours.

³ *Proceedings*, vol. lv. p. 167, fig. 10, No. 19.

external diameter; two nails; a portion of a slightly curved object of bronze, which suggests part of an armlet, and measures about 2 inches in length along the mesial line, tapering from $\frac{1}{4}$ inch at one end to $\frac{3}{16}$ inch at the other end; and a few indeterminate pieces of bronze, comprise the objects recovered under this heading.

Glass.—Only three fashioned objects of glass came from this level. One (fig. 25, No. 14) is a small segment of an armlet of opaque white, plano-convex in cross section and of small interior diameter; while the other was merely a fragment. A portion of a large melon-shaped Roman bead, measuring $1\frac{1}{16}$ inch in greatest diameter, was the third object.¹ Several pieces of Roman bottle-glass of varying thicknesses and two pieces of a pale green colour may be recorded. A piece of run glass is also of interest.

Jet, etc.—Three segments of jet armlets, two of which are illustrated (fig. 26, Nos. 11 and 12), and a segment of a small ring, which is triangular in cross section, and when complete would have measured only $1\frac{1}{2}$ inch in interior diameter, and a roughly lozenge-shaped piece of shale showing file marks on one surface, require no further comment.

Stone.—Relics of stone are more numerous than usual. One object about 5 inches in length, made from a naturally rounded, water-worn stone, has a very flat abraded end, and seems to have been used as a pestle. Another stone, measuring $7\frac{5}{16}$ inches in length and $2\frac{1}{4}$ inches at the broad end, tapers to about $1\frac{3}{16}$ inch at the opposite end. It is flattened on both sides, and seems to have been used as a polisher. A portion of a larger and heavier stone, which is barely 5 inches in length, has been used for a similar purpose. Another water-worn stone, about $4\frac{3}{4}$ inches in length, shows friction marks on the surface, possibly caused by a cord. Still another stone, measuring $4\frac{1}{2}$ inches in length, shows a number of small grooves on its surface, which may have been caused by some sharp-pointed instrument. Three hones of fine-grained stone, two of which (fig. 21, Nos. 4 and 5) are neatly fashioned; and a small stone of hard texture (fig. 22, No. 12), forming a chord, has a hole bored from both sides measuring $\frac{3}{8}$ inch in diameter and showing constriction in the centre. A slingstone of very rough manufacture, and about one quarter of a disc of fine-grained sandstone,² which has measured 3 inches in diameter and $\frac{1}{4}$ inch in thickness, sum up the objects of stone recovered, excluding whorls.

A small object of coprolite (fig. 36, No. 1) seems to have been a child's whipping-top. Such tops were much in favour with Greek and Roman boys, and the one mentioned may either have had a Roman

¹ Curle, *A Roman Frontier Post*, pl. xci. p. 336, illustrates similar beads.

² *Proceedings*, vol. liv. p. 191, fig. 20, Nos. 59-61.

origin or been manufactured by a native workman from a Roman pattern. It is of a dark slaty-grey colour, which may possibly have been acquired through its being in contact with some dark-coloured substance. It measures $1\frac{1}{8}$ inch in length by $\frac{1}{16}$ inch in diameter at the widest part, from which point it is rounded towards the head, while it has also been slightly rounded towards the point, which is blunt. Another and similar object will be described among the relics recovered from the level above, and it is of interest to note that these two objects were found only a few feet apart, although on different levels.

Whorls.—One large whorl of sandstone measures $2\frac{3}{16}$ inches in diameter, and the perforation has been drilled from both sides.

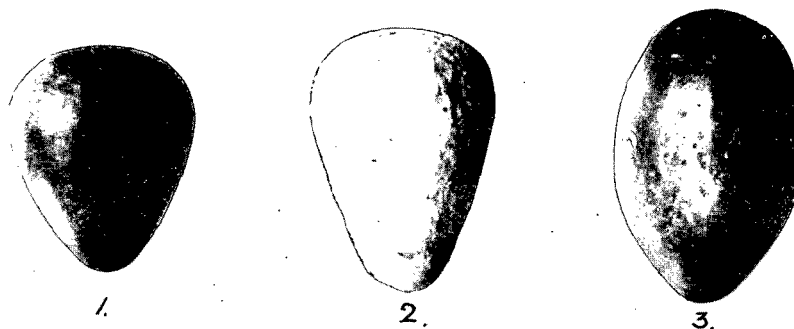


Fig. 36. Two objects of Coprolite and one of Hematite. (†.)

Iron.—Objects of iron from this level are unimportant, and consist of the following:—A bolt, which measures $4\frac{7}{8}$ inches in length, has a squared stem which is much thickened at the end, possibly through hammering. A split pin (fig. 18, No. 3), with stem broken, only measures $3\frac{3}{16}$ inches in length. A pin (fig. 18, No. 4), with rounded head through which a hole has been drilled, measures $3\frac{3}{16}$ inches in length. These are all possibly connected with horse traffic. Two thin plates of iron are indeterminate. One is roughly rectangular and measures 3 inches in length, $1\frac{1}{16}$ inch in breadth, and $\frac{1}{8}$ inch in thickness. The other, which is of irregular shape, measures $3\frac{1}{8}$ inches in greatest length by $1\frac{3}{4}$ inch in breadth, and is of similar thickness to the one previously described. A semi-elliptical piece of hematite (fig. 36, No. 3) measures $1\frac{1}{2}$ inch in length and $\frac{1}{16}$ inch in breadth. The under side of this has been smoothed to an irregularly flat surface. It is bevelled away at one end, possibly through usage, and shows striæ on its base and sides.

Moulds.—A few fragments of clay moulds may be mentioned, but as they are not of any definite form no description seems necessary.

Pottery.—Roman pottery is again represented by a few fragments of Samian ware; several shards of a vessel of hard texture and having a buff-coloured exterior, pieces of which have been found on various other levels and sections; a few fragments of a thin reddish ware; and a large number of shards of black cooking-pot having the usual lattice work decoration. Portions of two crucibles may here be mentioned, and one playing-man (fig. 27, No. 8) made from a piece of Samian ware. A large number of shards of native ware vessels were also found.

Coin.—The only coin recovered from this level is a denarius of Trajan (A.D. 98–117).¹

Relics from the second level are as follows:—

Object of Silver.—A small spoon-like object or strainer (fig. 20, No. 9) measures $1\frac{5}{16}$ inch in length. The bowl measures nearly $\frac{9}{16}$ inch in external diameter, and is pierced with fifteen perforations. A loop at the end of the handle is $\frac{5}{16}$ inch in diameter, and shows a friction mark at the upper end indicating that it has been suspended. This is supposed to be an article of the toilet, and is extremely rare. Similar objects have been found in the Merovingian cemeteries, suspended from a ring, together with tweezers and an ear-pick or nail-cleaner. An example with perforations in the bowl found in a Saxon grave at Cambridge is preserved in the Antiquarian Museum there. The purpose of these objects is unknown.² A decorated handle made of bronze, having a portion of a loop at the top, was found on Traprain last year.³ The latter has a very marked resemblance to the handle of a small spoon-shaped object which comes from Poland.⁴ Last year's object may thus have been the handle of a bronze toilet article similar to the silver one found this year.

Bronze:—Fibula.—Only the head of a small bow-shaped fibula (fig. 29, No. 6) came from this level. It is trumpet-shaped, and the centre of the bow is decorated with the usual floriated knob.

Pins.—Under this heading may be described an interesting casting of a pin (fig. 29, No. 7), which is of a type already well known on Traprain—the head being formed of six balls flattened at the back. Apparently in this case the upper and under halves of the mould have

¹ Cohen², vol. ii. p. 26, No. 69.

² Déchelette, *Archéologie Celtique*, "Age du Fer," p. 1274, fig. 549.

³ *Proceedings*, vol. iv. p. 190, fig. 21, No. 15.

⁴ "Wiadomosci Archeologiczne" (*Bulletin Archéologique Polonais*), vol. v. pl. 4, No. 14, p. 184, illustrates a strainer, the handle of which closely resembles our specimen of last year.

fitted badly together, with the result that the casting has been spoilt and the metal thrown aside as of no further use.

Harness Mountings.—A fine discoidal harness mounting (fig. 29, No. 8) measures $1\frac{9}{16}$ inch in diameter. The central portion is concave, and is decorated with eight dimly visible incised lines which radiate from a central hole, through which a small stud has been placed. Two large metal loops, which are not parallel, are placed on the back. The distance between them at one end measures $\frac{3}{8}$ inch, while the intervening space at the other end is only $\frac{5}{32}$ inch. Several similar mountings were found at Newstead.¹

Miscellaneous Relics of Bronze.—These consist of about one-half of an elliptical loop (fig. 29, No. 9) plano-convex in cross section, and measuring about $1\frac{7}{8}$ inch in external diameter; a small stud with conical head measuring $\frac{3}{8}$ inch in length; a conically shaped piece of metal (fig. 29, No. 10), probably the superfluous metal which has filled the gate of a mould, and been cut off the casting when the mould was broken and the object removed; it measures $\frac{1}{8}$ inch in diameter at the base and $\frac{1}{4}$ inch in height; a small spheroidal piece of bronze, whose purpose is not apparent, badly cracked; a piece of bronze binding, measuring $\frac{3}{4}$ inch in length and about $\frac{7}{16}$ inch in depth, covering some wood which is still in position; and lastly, a piece of bronze—a waster—measuring about $\frac{1}{8}$ inch in length.

Glass.—A small segment of an armlet (fig. 25, No. 15), plano-convex in cross section, is made of pale blue translucent glass. This is decorated with an inlaid design of yellow enamel. Four fragments of opaque white glass were found, two of which are illustrated (fig. 25, Nos. 16 and 17), but only one small piece shows any trace of decoration, a broken line of blue enamel being still partly visible. A few fragments of Roman bottle glass may be noted, but they merit no description.

Jet, etc.—One segment of a jet armlet (fig. 26, No. 13) is of some interest. It measures $2\frac{3}{4}$ inches along the mesial ridge, which is decorated with three small holes, surrounded by small incised circles, not placed quite equidistantly on the armlet. A fragment of another armlet measures $1\frac{1}{4}$ inch in length. At one end its thickness has been reduced, possibly with a view to connecting it with another segment. This method has frequently been noticed before. The segment is markedly triangular in cross section. Another small segment which is split longitudinally measures about 1 inch in length, and may be a portion of the same armlet. One half of a pin-head is very roughly fashioned. A fragment of some object is split longitudinally, but is nicely rounded and flattened on the upper surface. An irregularly shaped fragment

¹ Curle, *A Roman Frontier Post*, p. 300, pl. lxxiv. fig. 2, and figs. 1, 3, 8, and 10.

of jet shows on one of its surfaces the marks of some tool by which it has been cut.

Stone.—A natural water-worn stone, measuring about $4\frac{1}{4}$ inches in length, seems to have been used as a polisher, and has faint indications of friction marks which run diagonally across its surface and were possibly caused by a cord. A fine-grained piece of sandstone (fig. 21, No. 6), similar to one found on section M, level 1^a, has two rounded and two straight sides which are not parallel. It is $\frac{3}{8}$ inch in thickness, and has also probably been used as a sharpening stone. A small hone (fig. 21, No. 7), also of a fine-grained stone, measures 3 inches in length, and in one corner a hole has been commenced but has been left unfinished. A well-made hone measures $4\frac{3}{8}$ inches in length and there are also three others which are in fragmentary condition. A slingstone, which is nicely rounded, measures $1\frac{3}{8}$ inch in diameter, while another and smaller one only measures 1 inch in diameter. One of the most interesting fragments of stone (fig. 27, No. 1) found during this year's work measures $1\frac{3}{8}$ inch in greatest length. It has a rounded end, and on the surface are incised in Roman characters the letters A B C and a portion of D. It is unfortunate that the stone is so fragmentary: had it been more complete, possibly other letters might have been included. Whether these were made by a Roman soldier with the view of instructing some native, or whether they were cut purely for pastime, it is impossible to hazard an opinion. A playing-man (fig. 27, No. 9) measuring 1 inch in diameter completes the articles of stone, other than whorls, recovered from this level.

Another object of coprolite (fig. 36, No. 2), which is similar to the one described on p. 252, measures $1\frac{5}{16}$ inch in length and $\frac{1}{16}$ inch in breadth at the shoulder. It is roughly fashioned, and seems to suggest that the object was in course of manufacture.

Whorls.—One whorl made of sandstone (fig. 22, No. 14) measures $1\frac{7}{8}$ inch in diameter; while another stone (fig. 22, No. 13), which may have been intended for a whorl, measures about $1\frac{7}{16}$ inch in diameter, but is not quite circular. A hole has been commenced approximately in the centre of one face, but has never been finished.

Iron.—Several objects of iron came from this level, the most noteworthy being a sickle (fig. 18, No. 5), measuring about 6 inches from the point of the blade to the end of the tang, which measures $1\frac{7}{8}$ inch in length and is turned back at the point. About 2 inches above the tang the blade measures $1\frac{1}{16}$ inch across. A bent object of iron measures $3\frac{1}{4}$ inches in length, is circular in cross section in the middle and rectangular at the top. Another piece of iron, also of indeterminate use, measures $3\frac{3}{8}$ inches in length, and at one end is slightly curved to a blunted point.

Another object is an arc of a circle measuring 2 inches in outside diameter and $\frac{3}{8}$ inch in cross section, which is rectangular. An iron rod, which is bent, measures $6\frac{3}{8}$ inches in length, is circular in cross section at one end and rectangular at the other. A nail, the head of which is bent over, is lozenge-shaped in cross section. From point to bend the shank measures $2\frac{1}{4}$ inches in length, and the measurement from the bend to the end of the head is $1\frac{1}{4}$ inch. A ring measures $1\frac{3}{8}$ inch in outside diameter. An irregularly rectangular plate measures $2\frac{7}{8}$ inches in length, $1\frac{7}{8}$ inch at one end, and $1\frac{9}{16}$ inch at the other. It is nearly $\frac{3}{8}$ inch in thickness, and its use is indeterminate. A convex bloom or mass of iron is slightly concave on the top, and measures about $4\frac{1}{2}$ inches in diameter by 2 inches in depth.

Moulds.—A portion of a mould, measuring about $1\frac{1}{2}$ inch in length, for the casting of a pin, and a few fragments of a crucible were recovered.

Pottery.—Quite a number of shards of Roman vessels came from this level, and those worthy of special remark are as follows:—One shard of Samian ware which is decorated. A fragment of the wall of an undecorated bowl, which has a projecting flange, and several other undecorated pieces. A few fragments, some of which came from the third level, are of a thin light-coloured ware, which is covered both on the outside and inside with a brown slip. This has been rough-cast on the exterior. Several pieces of a thin hard ware, made of a grey paste, and having a buff-coloured slip on the exterior surface. Portions of this same vessel have been found on various levels. One or two fragments of a grey ware decorated with incised vertical lines. A shard of grey ware of hard texture, covered on the inside and outside with a reddish slip, is ornamented with a line of indentations running horizontally round the vessel and made with a pointed stick. Several shards of a large wheel-made dish or bowl have been joined together, and form a portion of the vessel from rim to base. It is made of a hard-baked reddish-brown paste, and shows traces of fire on the outside. The rim is flattish, and has a single groove inside. The wall tapers gradually towards the base. The exterior diameter of the vessel when complete would have measured about $9\frac{1}{4}$ inches, and the depth about $3\frac{1}{2}$ inches.¹ Another fragment of a similar vessel appears to have had a slightly larger diameter. The depth of this vessel, however, is not ascertainable, as no portion of the base remains. Portions of the bases of three vessels of like texture and colour may have been cooking-pots; and a considerable number of shards also of this class of vessel may be noted. One or two shards of a pale red ware, poorly fired and without decoration.

¹ Pitt Rivers, *Excavations at Rushmore*, vol. i. p. 101, pl. 33, fig. 3; Curle *A Roman Frontier Post*, p. 249. Rim section No. 5, p. 250, is similar.

A number of fragments of a large vessel of rough, coarsely made reddish ware. The neck of a water-bottle of a buff-coloured clay covered with a brown slip. About half the neck of a jug of a hard grey texture, which has had a handle attached; and one playing-man made from a piece of decorated Samian ware.

A small shard, measuring $\frac{1}{2}$ an inch in thickness, of coarse ware of native manufacture, which seems to be referable to the Romano-British period, is ornamented with indented marks, probably made by the fingernail, and placed vertically on the vessel¹ (fig. 19, No. 4). A number of other fragments of native ware are undecorated, and call for no special mention.

Coins.—Two coins came from this level. One, fragmentary, is probably of Gallienus (A.D. 260–67). The other is of Carausius (A.D. 287–93): it is a second brass, and is unpublished. The description is as follows:—

Obverse—[IMP C]ARAVSIVS P AVG Head of Carausius r. radiate.

Reverse—[LAE]TITIA AVG female figure seated l. holding patera in extended r. and leaning with l. on spear.

Relics from the first level are few, and consist of the following:—

Miscellaneous Objects of Bronze.—A segment of an armlet of bronze, measuring $2\frac{3}{8}$ inches along the mesial ridge, ornamented along its upper surface with a series of corrugations; a portion of a terret ring (fig. 24, No. 3) which has, instead of the usual spherical boss at the side, an ornamental rectangular mounting, measuring $\frac{7}{16}$ inch in length by $\frac{3}{8}$ inch in breadth. It is divided into four compartments filled in alternate corners with red and yellow enamel. Terret rings having enamelled settings are rare; one in perfect condition is in the Museum, and a few have been found in England.

Glass.—Four small fragments of opaque white glass armlets two of which are illustrated (fig. 25, Nos. 18 and 19) and two small pieces of Roman glass require no description.

Jet.—A portion of the head of a pin and a circular piece of thick jet (fig. 22, No. 15), which has a small hole on one face and which may have been intended for a whorl, are the only relics of jet recovered from this level.

Stone.—The objects of stone to be recorded consist of three hones or whetstones. The largest is of sandstone (fig. 21, No. 9), and measures $3\frac{7}{8}$ inches in length. The second is of finer texture, and measures $3\frac{1}{16}$ inches in length; while the third (fig. 21, No. 10), which only measures $2\frac{5}{8}$ inches in length, is nicely fashioned and is of a very hard texture.

¹ Similar shards are illustrated in Pitt Rivers, *Excavations at Rushmore*, vol. iv. p. 32, pl. 241, fig. 1.

Iron.—An object whose purpose is indeterminate measures $4\frac{1}{4}$ inches in length. The lower part for a distance of about $2\frac{1}{2}$ inches is circular in cross section. From here a swelling is formed through which there is a perforation $\frac{1}{4}$ inch in diameter. Above the perforation the swelling decreases, and terminates in a flat surface 1 inch in breadth and $\frac{1}{8}$ inch in thickness. Another object is fashioned with a stem about 3 inches in length, the end of which is slightly curving, while at the opposite end the metal is widened, suggesting shoulders. Its total length is $3\frac{5}{8}$ inches. Still another object is a nail of heavy make, the point of which is broken. It measures $3\frac{3}{16}$ inches in length, and the head, which is formed by bending over the metal, measures $1\frac{1}{8}$ inch in length. The shank of the nail is square at the end in cross section and rectangular below the bend of the head.

Pottery.—Roman pottery is represented on this level by one shard of decorated Samian ware which is only about 1 inch square. An animal, possibly a dog, is depicted running. A fragment of the neck and rim of a clay bottle, which joins two similar fragments found on the level immediately below, is of a hard, well-fired paste. The rim measures about $\frac{5}{32}$ inch in thickness and the exterior diameter is $1\frac{1}{8}$ inch. Two fragments of a vessel of coarse hard texture are about $\frac{5}{16}$ inch in thickness. The paste is of a yellowish colour, and the exterior and interior are covered with a reddish slip. Several shards of black cooking-pot require no further description. Fragments of native ware are of the usual coarse character, and only a comparatively small number were recovered. One small piece deserves notice, as it has been decorated. Three short incised lines, applied with a pointed stick, are placed about $\frac{1}{4}$ inch apart (fig. 19, No. 3). The thickness of the shard is nearly $\frac{1}{2}$ inch, and the paste contains a number of small stones. This piece is also assignable to the Romano-British period.

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