

I.

NOTICE OF A CEMETERY OF GRAVES AND CINERARY URNS OF THE BRONZE AGE, RECENTLY DISCOVERED AT KIRKPARK, MUSSELBURGH. BY REV. GEORGE LOWE, B.D. WITH NOTES ON THE URNS. BY JOSEPH ANDERSON, LL.D., ASSISTANT SECRETARY AND KEEPER OF THE MUSEUM.

Six years ago, a cinerary urn, containing bones, was found in a sand pit, belonging to the late Bailie Lowe, and situated near Musselburgh Station. Apparently the find excited little or no interest at the time, as none of the circumstances connected with its discovery can now be gleaned. The urn was immediately forwarded to the Museum of Antiquities in Edinburgh, and is No. 1, represented as fig. 1 of the annexed illustrations in Dr Anderson's description of the urns.

The course of the excavations at the sand pit was then in an easterly direction, but soon afterwards it was altered in a northerly direction; and it was only last year that the spot was approached, but from the opposite direction, where the urn had been found. The first thing to reawaken interest was the finding of an urn in the beginning of April of this year by the man in charge of the sand pit. Unfortunately it went to pieces as soon as the air began to act upon the crumbling material, and was not thought worth preserving.

The news of this find interested me very much, and I determined to keep a close watch upon future operations, to try and save, if possible, some memento of the past from the not too careful hands of the man in charge. One day I happened to be in the sand pit, taking a general look around, when I noticed that the long wall of yellow sand was broken in one place by much darker coloured sand, as if, at some time far back, a hole had been dug there and filled in with sand and earth mixed.

I at once procured a spade, and began to "slice down" the sand very thinly, so as not to do damage to anything that might be buried in the spot. The result was, the exposure of part of an urn. Careful digging all round, with careful handling, soon enabled me to take out of its resting-place a large cinerary urn (No. 2), containing a few bones. It was inverted on the top and almost in the middle of a layer of black material, in the lower part of the space that had been excavated. This black layer was a puzzle to me at first, but as it was found in every grave in which the urn was inverted, and always mixed with bones, the natural explanation would seem to be, that the discoloration was due to the burnt material which was thrown into the grave along with the calcined bones. In this case the bones were laid upon the top of the gravel bed. The urn was about 6 feet from the surface. No traces of bronze were found.

A few days afterwards I was informed that, in my absence, two urns had been found, but were both broken. It seems that they were protected by two large slabs of stone, resting on the top of the sand directly above the urns, and that these stones had fallen down upon them, and so destroyed this important find. Both these urns were about 12 inches high and were full of bones. One of them was scattered beyond recovery, but I managed to pick up most of the pieces belonging to the other (No. 3).

In the next grave discovered I found two urns, both of a small size. No. 4 was found in the *sand* immediately above the bones, while No. 5 was resting in the midst of the black material. Both were full of bones and sand. No. 5 was standing upright, and not inverted. These urns are very rude and irregular in shape. But a day or two elapsed before

coming upon another grave containing no less than four urns (Nos. 6 to 9). I came upon No. 6 first and perceived that it was an urn of the usual shape, and turned it up with the expectation of finding bones within. Instead, there was another urn (No. 7) of a beautiful cup shape, with extremely regular and elaborate ornamentation—being the most ornate of all the urns found. It was standing upright upon the heap of bones, but contained nothing within it. No. 8 was found in the same grave almost directly under Nos. 6 and 7, and contained a few bones. No. 9, also in the same grave, was found about 1 foot to the south of Nos. 6 and 7. It seemed to have been pitched in amongst the bones, as it was lying on its side, and in fact looked very like a stone at first, but for its regular shape. It also contained a few bones.

No. 10 was found within a week afterwards in a grave which bore all the usual characteristics. Unfortunately it was broken, owing to the fact that I did not expect to come upon it so soon. In all previous graves, the urn or urns were resting near the middle of the black material, but this one was upon the extreme edge; indeed, amongst the sand. It is shaped like a bowl, and was standing upright, and contained no bones.

No. 11 is also broken. It was discovered about 4 feet below the surface of the soil. The find was totally unexpected, as the grave contained no black material at all. All the bones appear to have been collected and placed *inside* the urn, which was then set upright within the grave. Another interesting fact in connection with this urn, is that it contained a chip of flint, in appearance not unlike the shape of a flint arrow-head. The bones bore no trace of bronze.

For some weeks after these discoveries no more urns were found, although we came upon many graves. In all, I should say that about eight graves were dug out, similar in every respect to the other ones. There were the same indications: dark brown sand, a layer of discoloured matter containing bones; but there were no urns.

The peculiarities attending the case of urn No. 11 were repeated in the case of urn No. 12, the next one found. It was situated about the top of the sand, within $3\frac{1}{2}$ feet of the surface of the soil, and only about 1 foot from where the excavations were proceeding six years

ago. The urn was standing upright, full to the brim of bones, and there was no discoloration: in fact, it was a difficult matter to distinguish it from the surrounding sand. It was found to be impossible to lift it whole, however, so it was just taken out in the best manner possible, and the result was that it almost crumbled to pieces.

Not far from this, but more to the south, I came upon two graves within a couple of feet of each other, and each containing a large urn (Nos. 13 and 14). The circumstances in each case were identical. Besides the black discoloured matter, containing a few bones, at the bottom of the grave, on the top of which the urns were inverted, the urns themselves were full of bones, many of them very large and extremely white in colour. One thing I noticed at once, viz., traces of bronze. Many of the bones were extensively dyed, as it were, with a brilliant green colour. The conclusion was evident: bronze articles of some kind had been placed in both urns amongst the bones. But though I made a diligent search, and carefully put all the material through a sieve, I could find no traces of the bronze itself.

Perhaps the strangest grave was that in which urn No. 15 was found. The man in charge was engaged in his usual work of removing the soil from the top of the sand, when he struck the urn with his spade. It was surrounded with large stones, in the midst of which it had been set; was standing upright and was quite empty, but for the soil. The only thing to be seen was the tender roots of the vegetables which had grown down, and were clinging to the sides of the large bowl-shaped urn. It was only about 3 feet from the surface, and there were no bones to be seen.

In addition to the urns described there were at least three which were totally lost through fracture, fragility, &c., so that the total number of urns discovered in this cemetery is at least 18.

Besides these graves, we also came upon some discoloured spaces of considerable extent, having an appearance as if some large animal had been buried therein. Instead of the dark brown sand there was a mixture of sand, earth, and gravel, topped generally by boulders of stone, some of them so large that a man could not lift them. Running through this broken material was generally a thin cake of black discoloured matter similar to that in the graves, never, however, horizontal to the

surface, but generally at an angle of about 45 degrees. In two of them we discovered a large bone, about 15 or 18 inches in length, which was quite soft and moist, and soon crumbled away. While these deposits appear to have little or no connection with the others, still their proximity to them, and the difficulty of accounting for them, suggest very interesting problems.

I may add that, in this same field, many stone coffins containing unburnt bodies have been found at different times.

The following Notes on the Urns found in this cemetery are supplied by Dr Joseph Anderson :—

This interesting cemetery has been so clearly and fully described by Rev. Mr Lowe, that it is not necessary to do anything more than merely to give a brief technical description of the urns, in the order in which he has referred to them.

No. 1 is a cinerary urn (fig. 1) of the common form, with a thick lip and overhanging brim, under which is a slightly constricted part or collar swelling gently to the shoulder at the junction of the perpendicular part of the vessel with the conical under part, which tapers regularly from the shoulder to the bottom. It measures $10\frac{1}{2}$ inches in height, 9 inches in diameter at the mouth, and $3\frac{1}{2}$ inches across the bottom. Like all these cinerary urns it is ornamented on the upper part, the sloping under part being usually plain and smooth. The ornament is differently disposed on the lip, brim, and collar. The overhanging brim is the most highly ornamented, being covered with a series of markings as of a twisted cord impressed into the clay. These markings are arranged in two ways. A series of eight lines arranged horizontally run round the brim at almost equal distances, but they are much broken and irregularly spaced. These are crossed at intervals by a line which zig-zags from the top to the bottom of the overhanging brim. The upper or flat part of the lip of the urn has straight lines of the same sort impressed upon it and crossing it obliquely from side to side. The collar below the brim is ornamented merely by incised lines zigzagging from top to bottom. The urn is about half full of burnt human bones.

No. 2 (shown in fig. 2.) is the largest of the urns found in this cemetery. It is also the largest entire urn in the Museum, measuring $18\frac{1}{2}$ inches in height, 15 inches in diameter at the mouth, $17\frac{1}{2}$ inches in diameter at its widest part,—viz., at the lower part of the overhanging brim,—and $5\frac{3}{4}$ inches across the bottom. It is also a cinerary urn of the same form as No. 1, having a thick lip and a heavy overhanging brim, with the collar

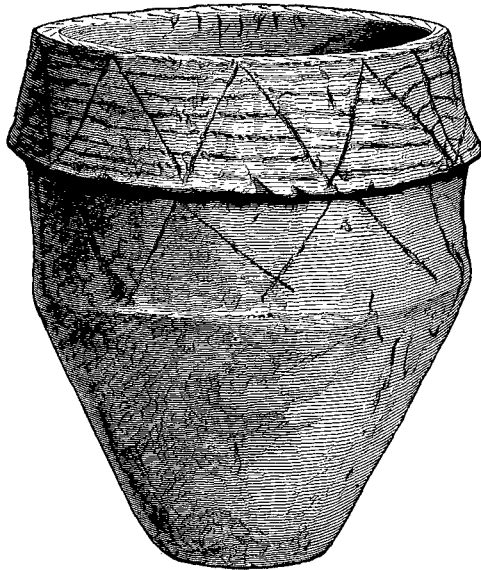


Fig. 1. Cinerary Urn from Kirkpark ($10\frac{1}{2}$ inches in height).

somewhat tapering, the shoulder less defined, and the conical under part more prolonged. The ornamentation is distributed in the same manner as that of No. 1, but is slightly different in character. It is, as usual, most elaborate upon the brim, which is divided into a series of triangles by a double line zigzagging from the top of the brim to the bottom, and these triangles are then filled in with double lines all running parallel to one side. The direction of the lines is changed in each triangle, and the whole of the lines are impressed into the clay as if by

a twisted cord. The ornamentation on the collar consists of double lines of the same character zigzagging from top to bottom, and each crossing two others. The lower ends of the zigzags come down over the ridge of the shoulder. The upper part of the lip of this urn is



Fig. 2. Urn from Kirkpark (18½ inches in height).

bevelled inwards but not ornamented. It contains a small quantity of burnt human bones.

No. 3 (shown in fig. 3.) is an urn of much plainer character, almost bucket shaped, and having the sides of the same thickness throughout.

It is $11\frac{1}{2}$ inches in height, $10\frac{1}{2}$ inches in diameter across the mouth, and $6\frac{1}{4}$ inches across the bottom. It is a cinerary urn like Nos 1 and 2, but differs from them in having no overhanging brim and no distinct collar and shoulder, yet the place of the collar and shoulder are apparently marked by slightly raised and rounded mouldings passing horizontally round the circumference at a depth of $3\frac{1}{2}$ and $5\frac{1}{2}$ inches under the lip.



Fig. 3. Urn from Kirkpark ($11\frac{1}{2}$ inches in height).

The lip itself, which is of the same thickness as the sides of the vessel, is slightly bevelled inwards and destitute of ornaments. The only ornamentation on the vessel consists of an imperfect zigzag of three parallel lines of impressions as of a twisted cord running obliquely between the lip and the upper of the two mouldings, but not crossing the moulding to meet each other. The bones found in this urn are not preserved, and the urn itself was only recovered in fragments.

No. 4 (shown in fig 4.) is a very small and very rudely made vessel, $2\frac{1}{4}$

inches in height, and $2\frac{1}{4}$ inches in diameter across the mouth. The sides are thick and uneven and much rounded towards the bottom, which has a circular flattening of about an inch in diameter, just sufficient to enable it to stand nearly upright. There is a scarcely perceptible shoulder on the exterior near the middle of the height, and in the line of it two small holes pierce the side of the vessel. These holes, which are somewhat less than a quarter of an inch in diameter and about half an inch apart, have been pierced through the side of the vessel from the outside while the clay was soft.

No. 5 is a small-sized cinerary urn, thick, heavy, and rudely made. It measures $3\frac{1}{2}$ inches in height, and $3\frac{3}{4}$ inches in diameter across the

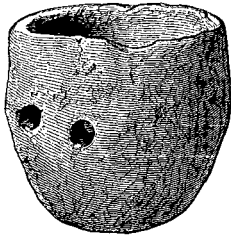


Fig. 4. Small Urn from Kirkpark
($2\frac{1}{4}$ inches in height).

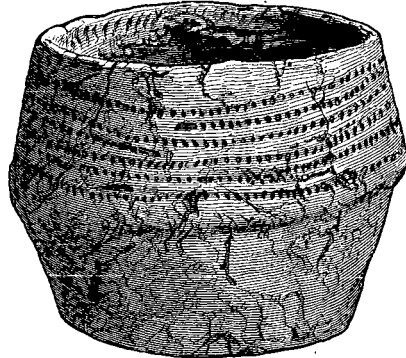


Fig. 5. Urn from Kirkpark
($3\frac{1}{2}$ inches in height).

mouth. In shape it widens a little from the mouth downwards to a shoulder near the middle of its height, from which again it tapers to a width of $2\frac{3}{4}$ inches across the bottom. There is no ornament on the lower part, but above the shoulder, and between it and the lip, there is a band of six irregularly parallel lines impressed as by the teeth of a comb and encircling the vessel horizontally underneath the rim. The lip is bevelled inward and ornamented by a row of impressed markings running round it midway between the edges. It was full of blackened sand and fragments of very small bones evidently burnt, but not burnt

white like the larger bones in the other urns. Having sifted them from the sand I sent them up to Dr Garson of the Royal College of Surgeons, London, who has favoured me with the following account of them :—

“I have carefully examined the enclosed bones which you forwarded me yesterday, and I find that they correspond exactly with those of a child about three or four months old. They are rather larger than those of a foetus at birth, at least that example we have in the College of Surgeons Museum, with which I compared them bone by bone. The history of its deposit is interesting, and I am glad that I have been able to determine what the bones are.

J. G. GARSON.”

No. 6 (shown in fig. 6) is a cinerary urn of rather rude make, although the clay is more brick-red than that of the larger urns, which are mostly of a darkish brown colour inclining to black. It measures $7\frac{1}{2}$ inches in height and 5 inches in diameter across the mouth, tapering to $3\frac{1}{4}$ inches across the bottom. It has no overhanging brim, but is surrounded by two slightly raised and rounded mouldings at $2\frac{1}{4}$ and $4\frac{1}{4}$ inches underneath the lip. The upper part, between the lip and the first moulding, is ornamented by two parallel lines of impressions as of a twisted cord running round the circumference, the one immediately under the rim and the other immediately above the first moulding. The space between these lines is crossed obliquely at intervals by lines similarly formed. There is no ornamentation on the exterior below the upper moulding, but a single line surrounds the lip midway between its outer and inner edges.

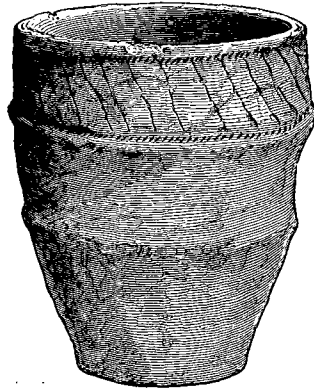


Fig. 6. Urn from Kirkpark
($7\frac{1}{2}$ inches in height).

No. 7 (shown in fig. 7) is a very neatly shaped, well made, and highly ornamented vessel of small size, measuring only $3\frac{1}{4}$ inches in height, 3 inches in diameter at the mouth, and $2\frac{1}{4}$ across the bottom. The contour of the sides is nearly globular, so that the widest diameter about the

middle of the height of the vessel slightly exceeds 4 inches. The bottom is not quite flat externally, but slightly concave, as if pressed in with the fingers. On one side of the vessel, about the middle of its height, two small holes, each about an eighth of an inch in diameter, have been pierced through the clay when it was soft. They have been pierced from the outside, and are regularly circular in section, though slightly ragged externally, and more so on the interior surface of the vessel, where the piercing instrument has pushed away minute portions of the clay round the holes. The two holes are placed $\frac{3}{4}$ inch apart, but they are placed unsymmetrically with respect to the lines of the top and bottom of the vessel, and those of the band of incised ornament which passes horizontally round the middle of its height. This band of ornament is $\frac{1}{4}$ inch wide, and

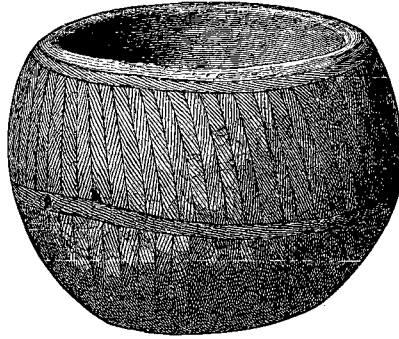


Fig. 7. Urn from Kirkpark ($3\frac{1}{4}$ inches in height).

one hole is situated on the line of its upper margin while the other is on the line of the lower margin. The one hole is thus an inch and a half while the other is an inch and three-quarters below the rim of the vessel. The ornamentation of the exterior surface of this small urn is so exceedingly minute and elaborate that it requires a good light to show that it is ornamented all over. The scheme of the ornament is very pretty. A band of more than an eighth and less than a quarter of an inch in width, defined by two marginal lines carried round the whole vessel immediately under the rim is filled in with oblique lines passing from margin to margin less than a sixteenth of an inch apart. A similar band sur-

rounds the middle of the vessel at its greatest diameter. The spaces between these two bands, and between the lower band and the bottom of the vessel, are divided vertically into a series of similar bands of oblique lines placed close together, the obliquity being reversed in the alternate bands, so that the whole surface is covered with a series of herring-bone patterns divided into two sets by the band in the middle. The lines, which are as fine as if they were drawn with the point of a pen, are scored or scraped into the polished surface of the clay rather than incised.

No. 8 (shown in fig. 8) is a still smaller vessel and of very different shape, being a short section of a cylinder $2\frac{1}{2}$ inches in diameter and $1\frac{1}{4}$ inches in height. The upper surface of the lip is flat and about $\frac{1}{4}$ inch in width, which is the thickness of the wall of the vessel. The

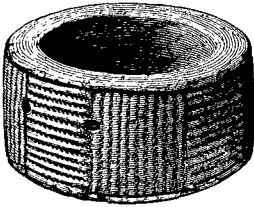


Fig. 8. Small Urn from Kirkpark
($1\frac{1}{4}$ inches in height).

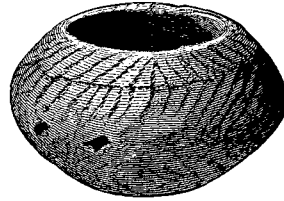


Fig. 9. Small Urn from Kirkpark
(2 inches in height).

bottom is also flat and of the same thickness. Two small holes fully $\frac{3}{4}$ inch apart are pierced through one side below the brim and $\frac{3}{4}$ inch above the base of the vessel, or about midway between lip and bottom interiorly. The exterior surface is ornamented in spaces about an inch square filled with parallel lines made of impressions as of a fine twisted cord, and placed from about an eighth to a tenth of an inch apart. The lines are alternately vertical in one square and horizontal in the next, and the whole pattern is bordered above and below by a marginal line running completely round the vessel, immediately under the lip and immediately above the base.

No. 9 (shown in fig. 9) is another very small vessel shaped like a section of a spheroid so much compressed as to present a very prominent

bulge round the middle. It measures 2 inches in height, $1\frac{3}{4}$ inches across the mouth, and $1\frac{1}{4}$ across the bottom. Two small holes are pierced through one side $\frac{3}{4}$ inch apart. They are placed immediately below the bulge or widest part of the vessel and somewhat more than half way between the top and the bottom. The ornamentation, which is all on the upper part of the vessel, is very rudely executed. It consists of a line of impressions, as if made with the teeth of a comb, running round the circumference at from a quarter to nearly half an inch below the lip, from which start other lines obliquely to right and left in herring-bone fashion, those on the upper side proceeding towards



Fig. 10. Urn from Kirkpark
($3\frac{1}{2}$ inches in height).



Fig. 11. Urn from Kirkpark
(7 inches in height).

the rim of the vessel being notched lines as if made with the teeth of a comb, and those going towards the bulge of the vessel being at one part notched, at another incised, and at a third part merely scraped or scored in the faintest manner. All the lines are very irregularly placed, both as to their distances from each other and as to their relative obliquity.

No. 10 (shown in fig. 10) is a bowl-shaped vessel measuring $3\frac{1}{2}$ inches in height, $4\frac{1}{2}$ inches in diameter across the mouth, and $2\frac{3}{4}$ inches across the bottom. It is quite unornamented, and has a distinct bevel of the inner side of the lip. It was found standing upright, but contained no bones.

No. 11 (shown in fig. 11) is a cinerary urn, measuring 7 inches in

height, and $5\frac{1}{2}$ inches in diameter across the mouth and 4 inches across the bottom. It has no overhanging brim, but is surrounded by three very slightly raised and rounded mouldings at distances of $1\frac{3}{4}$, $2\frac{3}{4}$, and $3\frac{3}{4}$ inches underneath the lip. The space between the lip and the upper moulding is decorated by a zigzag between two borders of impressed markings made with a narrow pointed tool about $\frac{1}{8}$ inch wide and set closely together, like the markings that would be made by a small toothed cog wheel. This urn stood upright, and was full of burnt human bones.

No. 12 is a cinerary urn of considerable size, which is so much broken that it cannot be reconstructed. It had an overlapping brim, and both the brim and the collar underneath it were ornamented with vertical lines of impressions as of a twisted cord.

No. 13 is a cinerary urn (fig. 12), finely made and highly ornamented, both the shape and the ornament closely resembling those of the largest urn, No. 2. It measures $14\frac{1}{2}$ inches in height, 11 inches across the mouth, and 5 across the bottom. It has a heavy overhanging brim, which extends $4\frac{1}{4}$ inches below the lip and projects at the lower part fully $\frac{5}{8}$ of an inch. The overhanging part is ornamented in triangular spaces formed by a double line zigzagging from a double-line border above and below, the one being immediately beneath the lip, and the other immediately above the lower edge of the overhanging part. The triangles formed within the zigzags are filled with lines drawn parallel to one side, the direction of the lines being changed and recurring in the alternate triangles. Below the overhanging brim is an almost vertical part or collar, 3 inches deep, which is separated from the conical under portion of the vessel by an almost imperceptible moulding. The ornament of this vertical part or collar is the same as on the collar of No. 2, viz., a series of zigzags crossing each other and forming diamond-shaped spaces in the centre, and triangular spaces at each side against the upper and lower border. The lower border line is accentuated by a series of short lines coming from it obliquely at intervals of about an inch apart. All the lines are formed by impressions as of a twisted cord, the fibrous texture of which is distinctly visible in the impressions. This urn was found inverted over a deposit of

burnt human bones, some of which are deeply tinged with the greenish stain which indicates the presence of bronze, though no bronze implement was found in connection with them.

No. 14 is also a cinerary urn (fig. 13), measuring $12\frac{1}{2}$ inches in height, $9\frac{1}{2}$ inches in diameter across the mouth, and $3\frac{1}{4}$ inches across the bottom. It has a well-marked overhanging brim $2\frac{3}{4}$ inches in depth, and project-



Fig. 12. Cinerary Urn from Kirkpark ($14\frac{1}{2}$ inches in height).

ing at the lower part about half an inch. The ornamentation is a series of oblong spaces filled with parallel lines, arranged vertically and horizontally in alternating spaces, and bordered above and below by simple marginal lines running round the whole circumference of the vessel

immediately under the lip, and immediately above the lower edge of the overhanging brim. The collar underneath the brim, which is $2\frac{1}{2}$ inches deep, is separated from the conical under part of the vessel by a well-defined and rounded moulding variegated by imprints of finger points at intervals of about an inch and a half. The collar is orna-

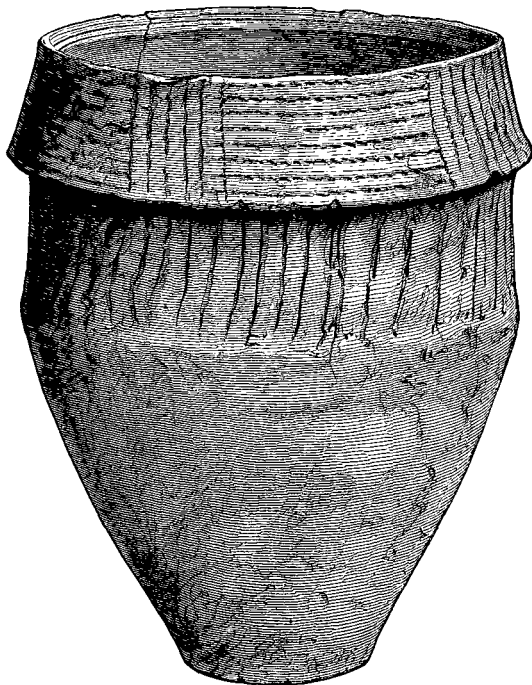


Fig. 13. Cinerary Urn from Kirkpark ($12\frac{1}{2}$ inches in height).

mented by vertical scorings at intervals of from $\frac{1}{2}$ to $\frac{3}{4}$ of an inch. The edge of the lip of the vessel is slightly bevelled inwards, and ornamented by a series of three parallel lines of impressed markings as of a twisted cord carried round the rim. This urn, like No. 13, was found inverted over a deposit of burnt human bones.

No. 15 is a cinerary urn, plain below, and much broken in the upper

part, so that its exact height has not been ascertained. It has been apparently a little larger than No. 14, was found standing upright about 3 feet under the surface, and contained nothing but soil.

This Cemetery of Bronze Age interments is interesting as affording what is so very rarely obtained—a carefully observed record, and a carefully preserved collection of the series of deposits which it contained. In its general character it closely resembles another cemetery also found in clearing away a natural deposit of sand at Magdalen Bridge, a little nearer the present sea-shore, and about a mile nearer Edinburgh, in which there were at least ten urns found, seven of which are now in the Museum, along with a small thin oval tanged bronze blade that was found in one of them. The urns from the two cemeteries have much the same character, the ornamentation on two of those from the Kirkpark Cemetery being composed of the same patterns distributed in the same way as that on two of the urns from Magdalen Bridge. In both cemeteries there was the same variety in the manner of burial, mostly after cremation.