I.

NOTES OF A SMALL CEMETERY OF CISTS AND URNS AT MAGDALEN BRIDGE, NEAR JOPPA. By WILLIAM LOWSON, F.S.A. Scot.

In the beginning of December last workmen began to excavate a piece of ground, little more than an acre in extent, lying between the Magdalen Chemical Works and Eastfield Cottages, Joppa, on the north side of the road from Edinburgh to Musselburgh. The level of the ground is about 12 to 14 feet above high-water mark. On the top was ordinary soil, and beneath that a layer of sea sand from 4 to 8 feet thick, and beneath that gravel. On 21st January last I learned from the person who had feued the ground that in the course of removing the sand the workmen had discovered a large cinerary urn filled with calcined human bones. The urn had passed into the possession of C. W. Cathcart, M.B., Lecturer on Anatomy, Surgeon's Hall; and that gentleman has generously presented it to the Museum.

The appearance of the ground led me to expect that this urn would not be the only one found; and I arranged with the workmen to send for me immediately on the discovery of anything of the nature of an urn or stone coffin. This arrangement has resulted in the recovery of six other urns, which are now also in the Museum. These urns were all contained in stone cists, varying as to size, and, as described to me, varying also in the circumstance that some had covering stones, and others had not. All the urns contained calcined human bones. In one of them the bones showed traces of the green stain characteristic of contact with bronze, but only the merest fragment of an implement was found. In another urn, however, there was found a small oval bronze blade, now in the Museum.

Besides these urns there were also discovered a stone cist with a male skeleton in a fine state of preservation, but without any object along with it except a small chip of flint; a stone cist quite empty; another stone cist with a small urn about 3 or 4 inches high, which crumbled to frag-

ments; and a skeleton without a coffin, described to me by an anatomist as that of a full-grown female.

All these different interments were from 4 to 6 feet below the level of the ground, and about 3 feet down in the bed of sand.

There was also discovered a portion of a red deer's horn on the top of the gravel, which, Dr. Anderson informs me, must have belonged to a head quite as large as any in the Museum.

The piece of ground in which these remains were found lies along the sea-shore, and is now faced with heavy stones towards the sea, but I saw an old man in Fisherrow who remembers that he used to dig out sand-marten's nests in that bank before the stones were put there. He had seen similar urns taken out in his boyhood.

Mr. W. Stevenson has kindly supplied the following notes regarding the stone cists:—

At the request of Dr. Anderson I went down and saw the first stone cist the same evening on which it was discovered.

With the exception of the absence of the skull (which had been brought to the Museum by Mr. Lowson), and a little subsidence caused by the removal of the sand from one side, the structure had not been dis-It was about 4 feet below the surface, and measured 3 feet long and 18 inches wide. It was formed at the sides and ends with rough slabs of red sandstone, such as might be got from the rocks at Joppa, and by water-worn boulders which had for some time lain within highwater mark. One large slab and several smaller ones covered the cavity The largest covering slab bore traces of having served as of the cist. a hearth for a fire, or burning of some sort—not a continuous burning, or of great heat, which would more or less have calcined and cracked the stone, but as if there had been burned on it a fire of straw or branches, the ashes of which had been allowed to remain until, through influence of the weather and water, they had covered the stone with a blackened coating.

The cist lay almost due north and south, and the body had been

placed in it on its side, with the face to the east, the knees drawn up to the breast, and the hands placed on or beside the knees. The bones did not bear any traces of cremation; and while some of them were very fresh, there were others which crumbled to the touch. The thigh bones measured 17 inches over all, and the height of the person might be about 5 feet 8 inches. The cavity or inside of the cist was entirely filled with sand, completely covering the bones, and, with the exception that one of its sides had caved in a little, it appeared to be in the same state in which it had been left after the burial. A very careful search was made, but no manufactured article was found except a very small chip of flint, which was found either beside or amongst the bones of the hands.

The other stone cist, which is said to have been found, was described to me, by the very intelligent person who has charge of the disposal of the sand, as of much the same construction; but it was entirely empty, and neither contained bones nor anything else.

Dr. Joseph Anderson adds the following description of the urns:-

The urns found in this remarkable cemetery are all of the same form and character. They belong to the largest variety of sepulchral vessels formed of clay, and some of them are specially remarkable on account of their size and the elaborate nature of their ornamentation. They all contained burnt bones and ashes, and are therefore cinerary urns, i.e., they are the receptacles in which the bones of the burnt bodies were placed within the cists or graves in which they were deposited. They are of the usual form of the cinerary urns of the Bronze age,—the lower part plain and flower-pot shaped, and the upper part more or less decorated.

No. 1, the first discovered, is a large, well-shaped vessel (fig. 1), measuring 13\frac{3}{4} inches in height, by 10 inches diameter at the mouth. The lower part is flower-pot shaped and plain; at the junction of the lower part with the perpendicular upper part, the urn is encircled by a slightly raised and rounded moulding, and a similar moulding is repeated

about 2 inches beneath the brim of the vessel. The ornamentation is confined to a narrow space round the exterior rim of the urn, and consists



Fig. 1. Urn found at Magdalen Bridge, Joppa. (133 inches in height.)

of zigzags of four incised parallel lines arranged between two incised lines forming its upper and lower margins.

No. 2 is more ornate in character, but smaller (see fig. 2), measuring 12 inches in height, and $9\frac{1}{2}$ inches in diameter. It is nearly of the same form as No. 1, but the upper part is slightly narrowed to the brim. It resembles No. 1 also, in having its ornamentation confined to a narrow band

immediately underneath the brim, but it differs again from No. 1 in being ornamented on the interior part of the brim as well as externally. The exterior ornamentation, which occupies the space between the upper moulding and the brim of the vessel, is arranged in a continuous band passing round the circumference, bordered above and below by three



Fig. 2. Urn found at Magdalen Bridge, Joppa. (12 inches in height.)

parallel incised lines, and divided into panels, each of which is filled by different arrangements of straight incised lines, placed so as to form patterns of zigzags or parallel lines crossing each other obliquely. The interior of the rim is ornamented by short parallel lines of impressed markings arranged obliquely. Among the burnt bones in this urn there was

found a small oval blade of bronze (fig. 3), swelling slightly in the central line of its length, and ornamented with lozenge shaped patterns of chequers. The exterior margins are thinned to a fine and keen edge, and though both ends are broken away there are indications of the prolongation of a

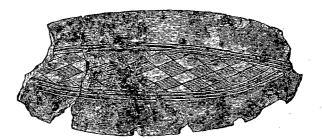


Fig. 3. Bronze Blade found in Urn No. 2. (Actual size.)

tang at one end for insertion into a handle. Examples of these thin oval bronze blades have been found in various parts of Scotland, usually deposited with burnt bones in cinerary urns. (See the papers on small oval bronze blades by Dr. J. A. Smith, in the *Proceedings*, vol. x. p. 431.)

No. 3 (shown as fig. 4) is the largest of the urns. It measures 16 inches in height by $12\frac{1}{2}$ inches in diameter across the mouth, and is thus not only the largest from this cemetery, but one of the largest and most elaborately ornamented urns in the Museum. In shape it closely resembles that last described. The lower part is flower-pot shaped and plain, with a slight moulding near the upper part of the slope. Above the slope of the lower part the vessel narrows somewhat to the brim, and is ornamented with a broad band of patterns of straight incised lines arranged in panels as in the previous example, and bordered above and below by three parallel inpressed lines. The patterns in this instance are more complex than in No. 2, but they are quite of the same character, consisting entirely of groups of parallel lines disposed obliquely

or in triangular or lozenge-shaped forms. The interior part of the rim is also ornamented with a band of oblique parallel lines.



Fig. 4. Urn found at Magdalen Bridge, Joppa. (16 inches in height.)

No. 4 (shown as fig. 5) partakes of the same general of form as No. 3, but is more distinctly narrowed towards the brim, the contraction from

the shoulder upwards being considerably greater than that of the part below the shoulder. As in the other examples, the lower part of the vessel is flower-pot shaped and plain, but it differs from all the others in having a double moulding encircling the plain part. The ornamentation of the upper part consists of a band of zigzag lines intercrossing



Fig. 5. Urn found at Magdalen Bridge, Joppa. (13 inches in height.)

symmetrically. The interior of the rim is ornamented with a band of oblique lines. The urn measures 13 inches high, and 14 inches in its greatest diameter at the shoulder, narrowing to 11 inches diameter across the mouth.

No. 5 (shown as fig. 6) is the smallest of the vessels, measuring only

 $10\frac{1}{2}$ inches in height, and $7\frac{1}{2}$ inches across the mouth. It is also more ornate in form and ornamentation than any of the others. As usual, the lower part is plain, the ornamentation commencing from the shoulder. It consists of two bands separated by a moulding, the lower band containing a series of intercrossing zigzags, separated from the plain space below by a line of punctulations, and the upper band consisting of a



Fig. 6. Urn found at Magdalen Bridge, Joppa. (101 inches in height.)

running herring-bone pattern. Both patterns are formed of impressed lines made apparently by a notched implement. The brim of the vessel is flattened, slightly recurved outwards, and ornamented by two impressed lines drawn round it in the middle of its flat surface

No. 6 (shown as fig. 7) is an example of the more common variety of the cinerary urn, flower-pot shaped below, contracting slightly from the shoulder upwards, and having a deep overhanging rim. The ornamentation, as usual, is confined to the part above the shoulder, and consists of a band of oblique lines on the lower portion underneath the rim, and on the rim a band of triangular spaces filled with oblique lines. The interior of the rim is decorated with a triplet of lines drawn round the sloping margin. The urn measures 12½ inches high by 9 inches in diameter.

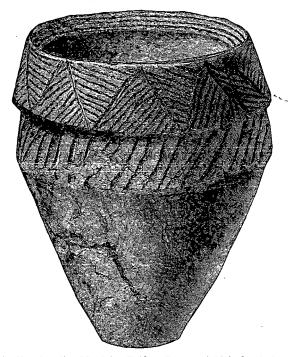


Fig. 7. Urn found at Magdalen Bridge, Joppa. (124 inches in height.)

No. 7 (which is shown as fig. 8) is of the same form as No. 6, and ornamented much in the same manner, except that the band below the overhanging rim consists of intercrossed zigzags, and the ornamentation of the interior of the rim is a continuous zigzag. The urn measures 12 inches high, and $8\frac{1}{2}$ inches diameter across the mouth.

No. 8 is a fragment only of the rim of an urn.

No. 9 consists of two fragments of the rim and body of an urn, which must have been about 13 inches high, and $8\frac{1}{4}$ inches in diameter.



Fig. 8. Urn found at Magdalen Bridge, Joppa. (12 inches high.)

[No. 1 is presented to the Museum by Charles W. Cathcart, M.B., Lecturer on Anatomy, Surgeons' Hall; Nos. 8 and 9 by Mr. Charles Gordon; and Nos. 2 to 7 inclusive by Mr. Lowson.]