

IV.

NOTICE OF THE DISCOVERY OF A CIST WITH AN URN AT KNOCKANKELLY, ARRAN. BY DR J. JAMIESON, GLENCLOY, ARRAN. WITH A REPORT ON THE OSSEOUS REMAINS. BY PROFESSOR J. CLELAND, M.D., LL.D., F.S.A. SCOT.

At Knockankelly Farm, Arran, on 21st February last, a cist was exposed by some workmen who were employed making additions to the farm-steading. As there was a small hillock behind the new additions, in the process of levelling the ground, the workmen, after removing about 20 inches of the surface, came upon a large stone of similar appearance to the sandstone on the shore. On removal of the stone, which was about 4 feet in length, nearly the same in width, and 6 inches in thick-

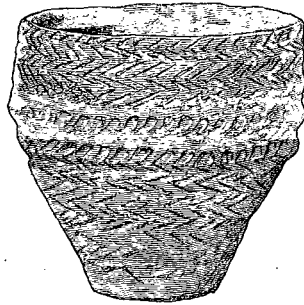


Fig. 1. Urn found in a Cist at Knockankelly, Arran ($6\frac{1}{2}$ inches high).

ness, they found that it formed the cover of a cist, which lay due north and south. The cist was of a rectangular shape, from 18 to 20 inches deep, and was composed of four stones—one long one at each side, and two short ones at the ends. Measured inside, the length was 2 feet 6 inches; the width, 1 foot 6 or 7 inches. In the south-east corner there was a small urn, a human skull, some long bones, and a few pieces of the ribs and vertebrae. One side of the skull was wanting, and the bones of the face were much worn away.

There were a number of teeth in the upper and a few in the lower jaw. No charred wood was seen; no arrow-heads or implements of any kind were found. The bottom of the cist was covered with fine white sand to the depth of an inch, and below this there was about 2 inches of rough gravel, and below this again pure white sand. The burial was within a gunshot of the shore. The urn (fig. 1) is $6\frac{1}{4}$ inches in height, diameter at the top $6\frac{3}{8}$ inches, and at a projecting rim at the belly $6\frac{3}{4}$ inches. The diameter at the bottom was $3\frac{1}{4}$ inches. It is beautifully marked with the herring-bone pattern below the brim, and with diamond-pointed markings between the rims.

The Society is indebted for the exhibition of the urn to the good offices of Mr Patrick Murray, factor to His Grace the Duke of Hamilton.

The following Report on the bones found in the cist is communicated by Professor Cleland:—

The bones sent to me by Dr Jamieson for examination are the bones of a boy of 10 or 11 years of age.

Skull.—The right side is imperfect; the greater part of the squamous frontal and parietal of that side, as well as molar and part of superior maxillary, having crumbled away. The condition of the dentition is as follows:—The 2nd milk molars are present, and the 1st molars are fully developed; the 2nd molars nearly ready to appear, the 1st bicuspid coming down; right permanent canine with fang begun to be formed; the left dropped out, as also the incisors and left 1st bicuspid.

Body of Lower Jaw and Coronoid Process of Left Ramus.—In their places in the lower jaw are the milk molars of right side, 2nd milk molars of left side, and 1st molars and 2nd incisors of both sides. Also seen in the jaw, but not yet come to the surface, are the bicuspid of right side, 1st bicuspid of left, and permanent canine of right side.

The other bones are—the ossa innominata, the ilia separate, the ossa pubis and ischia united as usual at that age; 3 upper sacral vertebræ; 4 lower lumbar and 5 lower dorsal; the leg and thigh bones of both sides, the epiphyses lost, with exception of the head of the right femur, upper and lower epiphyses of right tibia, and small portions of lower epiphyses of femora; lower two-thirds of shafts of both humeri; upper halves of shafts of left radius and ulna; axillary border and coracoid process of right scapula; similar but smaller fragment of left scapula; outer two-thirds of right clavicle; 16 fragments of ribs, including first rib of right side nearly perfect.

The age at the time of death is settled by the dentition, and that the sex is male is made probable by the bones being strong for the age, and by the general appearance of the skull. The thigh bones are stout both in shaft and neck, and the linea aspera is well marked. The oblique line on the tibia at the insertion of the popliteal aponeurosis and origin of the soleus muscle is remarkably distinct. There is not the smallest

approach to platygnemism. The shaft with the neck of the femur, from upper to lower epiphysis, measures 12·25 inches, and the shaft of the tibia measures 10·25 inches in length. I should think the lad must have been about 4 feet 2 inches in height. The pelvis measures 8 inches in breadth across the broadest part from crest to crest of ilium, which is a good breadth for the age.

The skull has been, as Dr Jamieson rightly notices, a well-shaped skull. The disappearance of some of the bones of the right side is obviously in consequence of the head having been laid on that side; and after they gave way the drainage for the remainder would be all the better. These are in excellent condition, as testified by the perfection of such delicate bones as the vomer and the left lower turbinated. But the prolonged saturation with damp has led to a very distinct amount of *post-mortem* distortion evinced by an obliquity very apparent towards the back part.

Dr Jamieson's measurements not being beside me, I venture to mention some of the dimensions as I find them.

Placing the skull straight, the position of greatest breadth is seen to be placed in the course of the squamous suture, the position characteristic, as I pointed out twenty-four years ago, of adults of civilised races, but not generally the broadest part in subjects so young; for breadth requires years in the individual as well as in the race to complete its course. The amount of breadth is best estimated in such a skull as this by doubling the distance from the broadest part of the surface on the complete side to the mesial plane.

Greatest breadth,	. . . . .	6·25 inches.
Greatest length,	. . . . .	6·6 "
Coronal breadth,	. . . . .	4·5 "
Zygomatic breadth,	. . . . .	4·2 "
From between incisors to front of foramen magnum,		4·4 "
Height from front of foramen magnum,	. . . . .	5·0 "
Orbito-nasal angle,	. . . . .	90°

In a skull so young, race characters are liable to be marked by those of the particular age. But these measurements give a very high index of breadth to length, viz., 93; and even allowing for errors arising from the way in which the breadth is calculated, and from the *post-*

mortem distortion, it is obvious that this skull is as brachycephalous as those of the short barrows.

In his book, *The Geology of Arran*, Dr Bryce has drawn attention to the barrows, circles, and cists found there. The female skull which he has figured, and of which a report by Dr Allan Thomson is given in the Society's *Proceedings* for 1863, has characters in common with this boy's skull, namely, that it is broad, and is full in the lower occipital region.

I need scarcely say that, whatever the vessel in the cist may have contained, the bones sent to me have never been exposed to even superficial cremation.
