SECOND REPORT OF CIST BURIALS AT PARKBURN SAND-PIT, LASSWADE, MIDLOTHIAN

by A. S. HENSHALL, F.S.A.SCOT.

The excavation of the main part of the long cist cemetery was undertaken in 1954, with a small subsidiary excavation in 1956, and a report was published in the Proceedings.\(^1\) Subsequent work at the site has been undertaken piece-meal as opportunity offered, and I have to thank the following colleagues who have contributed reports: I. H. Longworth, M.A., Ph.D., F.S.A.Scot., J. C. Wallace, M.A., F.S.A.Scot., K. A. Steer, M.A., Ph.D., F.S.A., A. MacLaren, M.A., F.S.A.Scot., Miss D. A. Lunt, M.D.S., F.S.A.Scot., and R. G. Inkster, M.A., M.D. I have also to thank S. Willy and J. P. Murray for the plan reproduced as fig. 3.

CIST WITH DRESSED SANDSTONE SLABS

In 1962 a single long cist was exposed to the NE. of the last cist found in 1956. This cist, which was examined by Dr I. H. Longworth, is of particular interest as it was partly constructed with dressed slabs apparently intended for a different structure.\(^2\) The following is Dr Longworth’s description of the cist.

“The grave lay under some 7½ ft. of deposit, the upper 6 ft. representing material dumped during the commercial working of the pit. When first visited, two dressed slabs (1 and 2 on plan) had fallen away from the end of the cist, and in the associated

\(^1\) P.S.A.S., LXXIX (1955–6), 252–83.
\(^2\) Preliminary report in D. and E., 1962, 35.
tumble at the edge of the grave, fragments of skull lay exposed. Two side slabs (3 and 4), also dressed, and a rough capping to the cist were also visible (fig. 1).

The depth of the deposit and the position of the grave on the edge of the crumbling pit-face precluded any attempt to investigate the cist from above, and it was decided that the structure of the grave could most readily be ascertained by cleaning up the front of the grave and excavating the half nearest the face of the pit.

The cist proved to be a well-made structure orientated along a line 60° E. of magnetic N. The sides of the grave, as far as they could be revealed, were made of well-dressed slabs of sandstone. In contrast, the floor was made of an irregular paving of rough, thin, undressed slabs (non-sandstone) and this flooring extended to the limit of the intact side of the grave. From this it was possible to see that the two slabs no longer *in situ* were in fact the end-slab and one of the side-stones. The roof, like the floor, was formed of thin, rough, undressed slabs. The nearest capping stone, which at one time would have been long enough to span the cist, had cracked and partially collapsed inwards. The fact that two stones had been placed over the crack suggests that this had occurred while the cist was being constructed. The section across the grave – drawn when slab 3 had also been removed – was thus a rectangle of some 9½ by 18 in. (fig. 2). Since the cist could not be fully explored, it was impossible to measure its exact length. However, as the length from the edge of the intact side of the cist to the joint of the femur and pelvis of the extended skeleton was 33 in. a rough estimate for total length would be about 6 ft.

All the dressed slabs were composed of a coarse sandstone and though all shared roughly the same dimensions and finish, each had certain distinctive features.

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<tr>
<th>Slab</th>
<th>Length</th>
<th>Width</th>
<th>Thickness</th>
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<tbody>
<tr>
<td>1</td>
<td>17½ in.</td>
<td>12½ in.</td>
<td>4½–5½ in.</td>
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<tr>
<td>2</td>
<td>17½ in.</td>
<td>11½ in.</td>
<td>4½–4½ in.</td>
</tr>
<tr>
<td>3</td>
<td>17½–18 in.</td>
<td>12½–12½ in.</td>
<td>4½–4½ in.</td>
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<tr>
<td>4</td>
<td>12½–14½ in.</td>
<td>11–11½ in.</td>
<td>4½ in.</td>
</tr>
<tr>
<td>5</td>
<td>17½ in.</td>
<td>12½–13½ in.</td>
<td>5–5½ in.</td>
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The cist contained an extended inhumation lying on its back. The skull had been badly damaged before investigation, but by sieving the tumbled earth round the grave, a considerable proportion was recovered. The mandible and base of the skull lay undisturbed and articulated to the spine. The bones showed considerable
differential survival. The middle region of the spine had largely dissolved, together with most of the right arm, clavicles and sternum, and little remained of the scapulae. The pelvis and left arm were in slightly better condition.

The grave was filled with a fairly compact deposit of sand and humus presumably collected by percolation through the cracks in the roofing. A small fragment of abraded pottery was found in this grave-fill and there can be little doubt that this had entered the grave by the same agency as the rest of the filling. The sherd is of a fairly hard black ware about 0.35 in. thick, tempered with relatively large grits of igneous rock. The surface, though worn, has a rather soapy feel, and the sherd seems to fall within the Western Neolithic wares.

Subsequently, early in 1965, the face of the sand-pit at this point collapsed, and the remaining stones of the cist fell away. The opportunity to examine the E. end

<table>
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<th>Slab 6</th>
<th>Length</th>
<th>Width</th>
<th>Thickness</th>
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<tbody>
<tr>
<td></td>
<td>17-17½ in</td>
<td>c. 14 in</td>
<td>4½-6½ in</td>
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Finely dressed on each face, and three sides, the longest side left rough. A groove has been pecked across each side ½ in. from the end. Measurements of the length are approximate due to recent damage down one side.

Roughly dressed on both faces, and all sides except the shorter of the two long sides. The longest side has a smooth border ¼ in. wide along the two long edges.

Dressed on both faces and all sides, the faces smooth with a few deep chisel marks. The shorter of the two long sides is only roughly dressed.

Fragment, dressed on both faces and one side, 4 in. thick, the other sides recent fractures.

Fragment of another slab, chisel marks on one face and one side, the other face and sides recent fractures.

The positions of slabs 6–10 in the cist are not known. Slabs 3–10 are preserved in the National Museum of Antiquities (FR 690–7).
of the cist was thus lost. In all, a further three dressed slabs were recovered together with fragments of two others. One of these slabs (slab 6) was found to carry a groove at each end similar to those on slab 5.

'The fact that in a large cemetery in which more than 120 cists have now been recorded, only one grave utilised dressed sandstone slabs, strongly suggested that these were unlikely to have been fashioned specifically for the cist. It seemed far more likely that they had been cannibalised from an earlier structure or diverted from their intended use. This suggestion was confirmed by the presence of three slabs with grooves, a feature which served no function in the grave and presumably related to a totally different use. In addition, at least five of the slabs showed a tendency to be wedge-shaped. Two of these (3 and 5) were seen in situ. Of these, slab 3 had been placed with the greater width at the top; slab 5 with the greater width at the base. This wedge-shaped dressing seemed in itself an unnecessary sophistication for slabs used to construct the sides of a stone cist and their inconsistent use served to underline the unlikelihood that the slabs had been made specifically for this grave. [In the event closer examination revealed that the stones were of Roman origin.'

LONG CISTS FOUND IN 1965

In October 1965 stripping of the over-burden in an area about 250 ft. ENE. of the cists found in 1956 revealed five more long cists and a short cist. The orientation of the long cists was similar to the general tendency of the cemetery to lie rather N.

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Fig. 3. Plan of long cists and short cist found 1965 (note star is 510 ft. WSW. of the corner of the field, marked A on fig. 4)

1 See section by Dr Steer, p. 209.
of E. and S. of W. The eastern-most cist (5 on plan, fig. 3) was built for a child, fragments of the skeleton being found. The cist measured 3 ft. 8 in. long by 1 ft. 6 in. across the W. end. The notable feature was the cover slab which was roughly shaped to fit the tapering form of the cist, and stretched the whole length, lacking only 4 in. at the foot. The adjacent cist (4 on plan) held a well-preserved skeleton, but the remains in the other three cists were in very poor condition. Remains of cover-stones were found on all the cists, and all except 6 were also paved. The sideslabs, three or four each side, were the usual thin undressed slabs of local laminated shaley sandstone.

There appear to be no more cists in the area outside the strip of woodland to the E. of these cists. However, cists were found in the wood, about 110 ft. to the E., in 1885. The area between the recent finds and the 1956 finds is not accessible at present, being covered by up to 7 ft. of dumped earth, and being used as an access track by the quarrymen. It seems likely that the cemetery originally extended in a long narrow strip for roughly 720 ft., along the edge of the flat hill (for the ground slopes fairly steeply down to the Park Burn). Much of the cemetery probably still exists under the trees (fig. 4). As it therefore seems probable that only a part of the cemetery has been explored, and 122 graves have been recorded, the total number of graves was probably several hundred.

THE SHORT CIST (fig. 5)

The following account is the work of Mr J. C. Wallace.

The short cist (No. 1 on fig. 3) was without a capstone. It was oriented N.-S. and was roughly rectangular, the inside dimensions being 1 ft. 10 in. on the N. side, 1 ft. 5 in. on the S., 3 ft. 3 in. on the E. and 3 ft. 0 in. on the W. As there was no bottom slab, only an approximate depth of 1 ft. 6 in can be given. The cist consisted of four massive sandstone slabs, the N. slab being 2 ft. 4 in. by 5 to 3 in. by 1 ft. 8 in.
deep, set lower than the others, the S. slab 2 ft. 6 in. by 6 in. by 1 ft. 6 in., the W. slab 3 ft. 1 in. by 7 in. by 1 ft. 6 in. and the E. slab, described below, 3 ft. 2 in. by 8 to 4 in. by 1 ft. 6 in. The cist appeared to have been constructed by digging a pit into which the N. slab was inserted, set against the edge of the pit; the other three slabs were then put into place and wedged with packing stones between themselves and the sides of the pit; in the NE. corner there was a packing stone between the E. and N. slabs. The E. side-slab was decorated with concentric semicircles below the upper edge, above the Food Vessel (see further, p. 211).

'The filling was of sand indistinguishable from that outside the cist. There was no trace of human remains, but near the SW. corner was a semicircular patch of a light colour about 3 in. in diameter with a dark border on the arc varying from 1

\begin{figure}
\centering
\includegraphics[width=0.7\textwidth]{fig5}
\caption{Plan of short cist}
\end{figure}

to 1\frac{1}{2} in. broad. About 2 in. in front of the Food Vessel was a light coloured circular patch 2 in. in diameter, and nearby a patch of light sand outlined by an L-shaped dark border about 2 in. by 2 in. All these discolorations were at about a depth of 1 ft. 6 in., at a level with the underside of the Food Vessel.

'In the SE. corner lay a Food Vessel on its side with the mouth towards the interior of the cist.'

**APPENDIX I**

*The Roman Stones*

*by K. A. STEER*

Three of the stones used in the long cist which Dr Longworth examined (pp. 204 ff.) are simple rectangular blocks measuring 14-18 in. in length, 10-12 in. in breadth, and 4 in. in thickness; in each case one of the longer edges is neatly dressed, but the remaining surfaces are only roughly scabbled. The other stones are more distinctive. All of them measure about 18 in. long by 13 in. broad, but they are wedge-shaped in section and grooves have been cut in the sides. Two of the stones have a pair of grooves, as shown in fig. 7, whereas the third has a groove on one side only.
Similar stones have been found in several Roman bath-houses along the line of Hadrian’s Wall, notably at Greatchesters and at Chesterholm, and they have been identified as arch voussoirs employed in the barrel-vaulted ceilings of the caldaria or ‘hot rooms’. The ribs formed by the voussoirs were laid parallel to one another at close intervals, and were linked together by tiled air-spaces which not only reduced the weight of the roof but also helped to prevent loss of heat from the room. It is thought that the edges of the lower tiles of each air-space were slotted into the grooves of the voussoirs, and that the upper tiles rested on the tops of the stones. No arch voussoirs of this type have previously been recorded from Scotland, but Newstead and Carriden have produced specimens of an alternative, more elaborate, version equipped with ledges for both the upper and lower bridging tiles.

The nearest Roman fort to the Parkburn cemetery is Inveresk, 3 miles to the NE., and the possibility that the stones are associated with that site is heightened by the fact that the material of which they are composed, the Roslin Sandstone Series, is known to have been used by the builders of the Antonine fort at Inveresk. On the other hand 3 miles is a long way to transport stones simply for the purpose of making a cist, and as the Parkburn stones do not show any certain traces of mortar it is possible that they were found on the site of some nearby Roman quarry from which material for Inveresk was derived.

APPENDIX II

The Food Vessel from the Short Cist (fig. 7)
by A. S. HENSHALL

In form the bowl belongs to Abercromby’s type 1A or Childe’s type B 1b, with a concave collar, deep groove between two close-set cordons at the shoulder, and body narrowing to the base. The shoulder groove is spanned by four stop-ridges.

1 P.S.A. London, 2nd series, xvii, 33.
3 The voussoir from Parkburn with only a single groove will thus have come from one or other of the two end ribs of the building.
4 P.S.A.S., lxxi (1936-7), 383 ff.
5 This information is based on the examination of a sample of stone submitted to the Geological Survey (Scotland Office) by Sir Ian Richmond following his excavations at Inveresk in 1946-7. It has been kindly supplied by Mr G. H. Collins who also reported on the Parkburn stones.
6 Abercromby, J., A Study of Bronze Age Pottery, 1912, 93.
7 Childe, V. G., Scotland Before the Scots, 1946, 105.
The decoration is by impressed cord and jabbed incisions. On the internal bevel of the rim there are four lines of cord impressions. Above the upper cordon there are seven similar lines. Between the two cordons are three rows of slanting deep jabs, two more rows just below the lower cordon, and three more rows just above the foot, leaving a plain band round the lower part of the body.

The pot is 4.8 in. high, 5 in. in diameter at the rim, and 2.7 in. in diameter at the base. Where the surface is slightly damaged it can be seen that the ware is dark grey with quite large paler grits. The surface is finer, but does not completely cover the grits. It is buff in colour, becoming bright pink in one area.

![Food Vessel from short cist](image)

**Fig. 7. Food Vessel from short cist**

**APPENDIX III**

*The Decorated Slab from the Short Cist (Pl. XXVI)*

by A. MacLAREN

The markings on the Parkburn slab represent only a part of what was originally a larger figure, and while it is not possible to make a reconstruction from what remains, it seems probable that the design consisted of a number of concentric rings forming a roughly circular or sub-circular figure. At least five, and possibly six, shallow grooves can be seen, cut into the surface of the stone by pecking; and if the original motif was approximately circular, the surviving arcs would represent about one third of a multiple ring figure measuring about 1 ft. 6 in. in diameter. The markings are now faint and have deteriorated considerably through weathering, the maximum width being 0.3 in. and the depth not more than 0.1 in. This strongly suggests that the carvings were done some appreciable time before the slab was selected for use as part of the cist, and not necessarily by the cist-builders themselves.

The site of the cist lies less than ¼ mile from the River N. Esk, and rock-carvings are already known from the N. Esk gorge at Hawthornden, near Roslin, some 2½ miles to the SSW.¹ The Hawthornden markings, which occur on a natural rock surface, include concentric circles, and it is possible that the Parkburn slab may have come from somewhere nearby along the course of the N. Esk, the rock itself being a sandstone of a type found exposed in the N. Esk valley.

¹ *P.S.A.S.*, LXXIII (1938-9), 316 ff.
Multiple circles are a common motif in the repertoire of Passage Grave art, as typified in the Boyne tombs of Ireland, but they also occur, though much less frequently, in the Galician or cup-and-ring group of rock sculpturings. In Scotland, ring markings (without central cups or radial grooves, etc.) have been found in a few cases on the slabs of short cists.

1. Tillicoultry, Clackmannanshire
   Cover-slab of cist containing Food Vessel
   R.C.A.M., Inventory, No. 617

2. Knappers, Kilbowie, Dunbartonshire
   On ?end-slab of cist containing polished flint adze
   P.S.A.S., lxix (1934–5), 333

3. Gatterline, Kincardineshire
   Cover-slab of cist containing inhumation, Beaker and quartzite implement
   P.S.A.S., lviii (1923–4), 27

4. Wester Yardhouses, Lanarkshire
   Cover-slab of cist containing Beaker
   P.S.A.S., x (1872–4), 62

5. Carlowrie, West Lothian
   Cover-slab of cist. No relics
   R.C.A.M., Inventory, No. 349

6. Craige Hill, West Lothian
   Cover-slab of cist. No relics
   R.C.A.M., Inventory, No. 43

Four other ring-marked slabs, which may have been associated with cists, are known.

7. Nether Largie, North Cairn, Argyllshire
   Small upright stone in cairn
   P.S.A.S., lxv (1930–1), 269

8. Beech, Ayrshire
   Small slab in cist-like structure in cairn
   P.S.A.S., lxxxii (1937–8), 238

9. Drumelzier, Peeblesshire
   Probable cover-slab of cist. No finds
   R.C.A.M., Inventory, No. 14

10. Lamancha, Peeblesshire
    Possible cist slab. No finds
    R.C.A.M., Inventory, No. 101

In addition, stones with ring-markings occur in three Maes-Howe-type chambered tombs in Orkney.

   Eday Manse

   Holm of Papa Westray
   Henshall, 202, No. 22

   South Pickaquoy
   Henshall, 225, No. 40

Ring-markings are also recorded on a slab built into the outer face of the wall of the Broch of Midhowe, Orkney (R.C.A.M., Inventory, No. 553); on the recumbent stone of a recumbent stone circle at Arn Hill, Aberdeenshire (P.S.A.S., xxxviii (1902–3), 227); and on detached slabs at Leaston House, East Lothian (R.C.A.M., Inventory, No. 84) and Whithorn Museum, Wigtownshire. Other examples from England and Ireland have been listed by MacWhite, op. cit., 80 and by Grinsell, *Dorset Barrows* (1939), 74.

Of the Scottish examples, the three from the Orkney chambered tombs are clearly a direct offshoot from the Irish Passage Graves, such as Newgrange, and all the examples from cists represent either pure or derivative influence from the same traditions, and indicate in some cases a fusion of Passage-Grave and Galician art styles.

It is interesting to note that the Parkburn, Carlowrie and Craige Hill cists and the Lamancha slab all lie within 15 miles of each other, and that within the same area occur the Hawthornden rock-markings (which include spirals and other motifs found commonly within the Passage-Grave art repertoire) and also the Braid Hills Stone (R.C.A.M., Inventory (Midlothian), No. 229) which MacWhite regards as an example of Passage-Grave art.

It will be impossible to assess or define the relationship between the Passage-Grave and Galician art groups until a corpus has been made of the relevant material in the British Isles, but recent discoveries at Newgrange suggest that the relationship may be somewhat closer than has normally been acknowledged.

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APPENDIX IV

The Skeletal Remains
by R. G. INKSTER

Cist 4. These bones make up most of a well-preserved skeleton of an adult, including an almost intact skull and the small bones of both hands and feet.

The long bones are straight and rather slender and all the joints are in good condition without any sign of disease. There have been good arches in the feet and there is evidence of very free movement at the joints of the feet (inversion, dorsiflexion and plantar flexion).

Calculations from the length of the thigh and leg bones and from the upper and lower arm bones all yield a height for the individual of about 5 ft. 1 in. to 5 ft. 3 in., the lower estimate being likely if female, the upper one if male. The proportions of the limbs are reasonably normal, the leg being, if anything, slightly short compared with the thigh.

The number of vertebrae is normal and all are represented.

Sufficient of the pelvis was reconstructed to indicate that it is from a lightly built male although several of the criteria used (including the diameter of the head of the femur) were marginal because of the lightness of the bones.

The above estimates of height are based on Manouvrier’s tables. Wells gives estimations of stature, calculated from limb bones found in long-cist burials in the Lothians, as ranging from about 5 ft. 5 in. to 5 ft. 8 in. in the male specimens, but the formula used (Trotter and Gleser) is based on figures referring to American whites. These, owing to nutritional and other factors, yield rather high results when applied to some other races. Using Trotter and Gleser’s formula for American whites, the bones (femur + tibia) from Cist 4 still only yield an estimated height of 5 ft. 4 in., so that the stature must be considered short in this case.

The skull is well preserved and has a capacity of 1750 cc. (measured by filling with small glass beads) with a Basion-Bregmatic height of 131 mm., a maximum length and breadth of 188 mm. and 143 mm. respectively and a nasion-inion length of 185 mm. The length-breadth index is thus 76, mesaticephalic, but at the dolichocephalic end of that range.

Complete fusion of all the epiphyses of the long bones indicates that the skeleton is from an adult and the condition of the skull sutures suggests an age of about 40 years, the sagittal and lambdoidal sutures being closed internally except in the immediate vicinity of lambda. This estimate of the age is supported by the considerable wear of the teeth.

The teeth are in good condition, without caries, but show considerable wear, including edge-to-edge wear of the incisors. The wear of the molars is more pronounced on the left side and is almost through to the dentine in the case of the left 1st lower molar. The right 1st lower molar has been lost during life.

All the 2nd premolars (upper and lower) are missing, apparently as a developmental failure, and the right 3rd upper molar has been rudimentary. The lower 3rd molar has been poorly developed on the left side and is unerupted and almost horizontal on the right side.

There is no suggestion of a mandibular torus.

Cist with dressed stones. These remains are fragments of a human skeleton, mainly skull with a few parts of the axial skeleton and limbs.

The skull was partially reconstructed to show the vault, part of the side of the cranium and part of the base, and sufficient evidence was obtained to show that the skull had been very similar to the one from Cist 4, but no useful measurements were possible.

The degree of fusion of the sutures was, in this case, greater and suggested an age of over 40 years. The greater wear of the teeth supports this view.

The upper and lower jaws are in good condition and most of the teeth are present. Wear in the teeth is considerable, especially in the case of the left 1st lower molar and left 1st upper molar where the dentine is much exposed. The right 1st upper molar has been lost during life and the adjacent part of the 2nd molar shows a considerable degree of interproximal caries. Similar but much less extensive caries is present in the left 1st upper molar. Caries is well recognised as being very rare in teeth from early burials though more frequent in later ones. Miss Lunt gives the percentage of cases as 0·5 for Bronze Age specimens, 3·8 for medieval ones. Again, there is no suggestion of a mandibular torus.

The bones are now stored in the Anatomy Department, Edinburgh University.

APPENDIX V

The Dentition of the Skull from Cist 3
by D. A. LUNT

Most of the maxillary alveolar process and palate are present, as far back as the second maxillary molars. Behind the latter teeth, the bone shows post mortem damage. Fourteen teeth are present in the maxilla. Two fragments of mandible are also present, in which a total of sixteen teeth is present. Thus the entire permanent dentition is intact, with the exception of the maxillary third molars.

All the teeth except the second and third molars show early second degree attrition (dentine exposed at cusps and incisal edges). The second molars show first degree attrition (enamel facets but no dentine exposed). The mandibular third molars show small wear facets on the mesial side of the occlusal surface but the distal parts of the teeth are completely unworn.

The degree of attrition of the mandibular molars suggests an age of 20-22 years, according to the scale prepared by Miles from a study of Anglo-Saxon skulls. It must be emphasised that this assessment of age can only be accurate if the diet of this long-cist individual was of a roughness comparable to that of the Anglo-Saxon diet.

The teeth are well formed and calcified, and there is no evidence of caries. The supporting bone is normal and there is no sign of periodontal disease. The maxillary alveolar bone has been broken behind the second molars and it is not now possible to state whether the third molars were present in vivo or not. In view of the absence of any distal wear facets on the mandibular third molars, it is most probable that the maxillary third molars were either congenitally absent or embedded.

The palate is very high and narrow, a form fairly frequently observed in the long-cist people. This shape of palate tends to reduce the length of the arch and cause crowding of the teeth. In spite of the apparent absence of the maxillary third molars in this skull, there is crowding and overlapping of the maxillary incisors. There is also a considerable degree of crowding among the mandibular incisors and canines.

Above, stone with concentric rings, from the short cist (about §)

Below, the stone in situ during excavation, the Food Vessel partly exposed (photo by S. Willy)

HENSHALL: LASWADE
Dressed stones from the long cist: above, slab 3 with one side grooved; below, slab 5 with both sides grooved (about $\frac{1}{4}$)

*Henshall: Lasswade*