

## THE GAULCROSS HOARD OF PICTISH SILVER

by R. B. K. STEVENSON, F.S.A.SCOT., and JOHN EMERY

### I. DESCRIPTION AND DISCUSSION OF THE OBJECTS

THOUGH illustrated by Stuart in 1867,<sup>1</sup> the three surviving silver objects from Gaulcross have never been adequately described. Stuart reported fully the circumstances of their discovery, shortly before 1840, buried in the ring-cairn of a recumbent-stone circle called Gaulcross at Ley, Fordyce, Banffshire (N.G.R. NJ 535639). There were with them other pins and some brooches, unspecified and not heard of since. Not long afterwards Sir Robert Abercromby, Bart., the proprietor, gave the three objects to the museum of the Banff Institute for Science. From Banff Museum they have now been lent by Banff Town Council for safe-keeping in the National Museum, in exchange for replicas. Two of the replicas have been made in silver by Mr John Emery, of Trinity College, Glenalmond; the Museum is most indebted to him for this, and also for adding here an account of the making of one of them. One may call the hoard Pictish because it was buried in what was then Pictland, but the country of origin of each piece is at present 'not proven'.

1. *Hand-pin* (Pl. XI, 1). This is probably the finest known pin of the kind named from the resemblance of its head to fingers and a palm.<sup>2</sup> The spiral design is contained within the half-moon shaped palm, only 0.7 in. across, and consists of three groups of triple hair-spring spirals whose inner ends form 'dodo-heads', nine in all. The outer ends either form trumpet-expansions and then link with the next group, or escape to the edge of the design to end again in heads, two of them plain and three in a small spiral preceded by a trumpet expansion. Stuart's illustration is a mirror-image. It also shows, on the middle of the three projecting fingers, a rather worn eight-pointed cross or star with pierced centre<sup>3</sup> – triangular silver 'gussets' between the arms were probably intended to be hidden by enamel. There is, however, still more decoration. The groove between the side fingers and the palm has a central ridge which has been cut into round beads by a hollow punch. The same punch lightly applied has been made to draw a line across the base of the fingers at the back, also to form groups of three dots on the back of each finger, at four places on the back of the palm (and also two single dots), and once at either side of the corner made by the stem of the pin as it projects to carry the head. The ridge between the two grooves on the curved edge of the palm is also beaded. The stem does not end in its original point, but has been forcibly bent and snapped, damaging the silver and leaving a sort of core projecting obliquely in a rough point. The overall length of the pin is now 5.6 in.

The earliest developments, which have circular heads with pellets – rosette and

<sup>1</sup> Stuart, J., *Sculptured Stones of Scotland*, II, Pl. 9 and p. 75.

<sup>2</sup> Smith, R. A., *P.S.A. Lond.*, xx<sup>2</sup> (1903–5), 351.

<sup>3</sup> This may be a variant of a pierced cross-fourchée as e.g. on a seventh-eighth-century textile from Paspel in Switzerland (*Z. für Schweiz. Arch.*, xxiii (1963), 164).

proto-hand-pins – are known from Scotland, where the Traprain Law evidence gives a late third-fourth-century date for them.<sup>1</sup> Intermediate typologically are two also from Traprain, perhaps fifth-century, or later if the site had a longer history than most of the present evidence suggests.<sup>2</sup> The true hand-pin has been found at 10 places in Scotland and more often in Ireland.<sup>3</sup> The largest and most like that from Gaulcross are one from Castletown Kirkpatrick, Co. Meath,<sup>4</sup> and a pair from the Norrie's Law hoard in Fife.

Raftery has described the former as having punched circle decoration along the edge forming bands in relief and on the back forming flat lines and groups of three – actually two lines project downwards there at 30° from a horizontal line, and in the two triangles thus formed on either side of the pin there are single groups of three. He notes the similar inconspicuous circles on the back of some Irish zoomorphic penannular brooches, as illustrated by Kilbride-Jones<sup>5</sup>; one has a poor palmette design on the front and the other a kind of dodo-head. There is unfortunately as yet no agreed typology of such Irish brooches, but also nothing positive against their being of the date to be suggested here for the pin. Circles and beading occur again on one of the large Norrie's Law pins. (There is also a small one in the hoard.) For though these have hitherto been assumed to be a true pair – Joseph Anderson said their ornamentation was almost precisely similar<sup>6</sup> – they are unlikely to have been made by one man, and one was probably made in imitation of the other after quite a lapse of time.<sup>7</sup> The one illustrated by Anderson which has a Pictish symbol, the Z-rod, engraved before the head was attached,<sup>8</sup> is the later of the two: the edges of the head are sharp and unworn and the details of the decoration are more crudely and irregularly executed. As can be seen on Pl. XI, 2–3, *a* has good hair-spring spirals and a neat leaf-shaped hollow on the trumpet-end in the very centre. The cross on the central finger of *b* is a cross-pattee in a circle but *a* has a straight-sided cross within a diamond inside a circle. More significant is the edge: *b* has a simple engraved herring-bone with a ladder pattern along one side (fig. 1, 6) but *a* has a sophisticated design of elongated lozenges with a punched circle at the centre of each and a border line of punched circles at each side (fig. 1, 1). The back of *b* is plain apart from the symbol; but that of *a* (note the wear on the fingers) is covered with a *semée* of circles irregularly grouped in threes, there is a single circle on the elbow of the pin, and the collars below and between the fingers are also beaded with the circular punch.

The beaded ridges are strongly reminiscent of collars of beaded wire filigree,

<sup>1</sup> *P.P.S.*, XXI (1955), 289–91; Mahr, A. and Raftery, J., *Christian Art in Ancient Ireland*, II, 25–26, 92–94; most recent review of typology, Fowler, E. in *Arch. J.*, CXX (1963), 125 ff.

<sup>2</sup> *P.S.A.S.*, LXXXIX (1955–6), 139, 169–70.

<sup>3</sup> *ibid.*

<sup>4</sup> Mahr and Raftery, *op. cit.*, I, Pl. 1, 7 and II, p. 93.

<sup>5</sup> *P.R.I.A.*, XLIII C (1935–7), 414, fig. 10.

<sup>6</sup> *P.S.A.S.*, XVIII (1883–4), 239–47; see also *P.S.A.S.*, VI (1864–6), 7–10 and LXVI (1931–2), 384–5. Norrie's Law is a prehistoric cairn, so both Pictish hoards were buried in much more ancient monuments: cf. Norse-period coin hoards at Fourknocks, Co. Meath, Ballycastle, Co. Antrim and possibly Kilmartin, Argyll (*Anglo-Saxon Coins*, ed. Dolley, R.H.M., 257 and *N.S.A.* VII, 560).

<sup>7</sup> This has nothing to do with a suggestion once made by the writer that if the fourth-seventh centuries seemed too long a period over which to spread the early to late hand-pins, it was possible that the later pins were a revival due to an old pin having inspired a later craftsman.

<sup>8</sup> The central part of the rod is omitted from Anderson's fig. 10, and has a trace of red enamel in it.

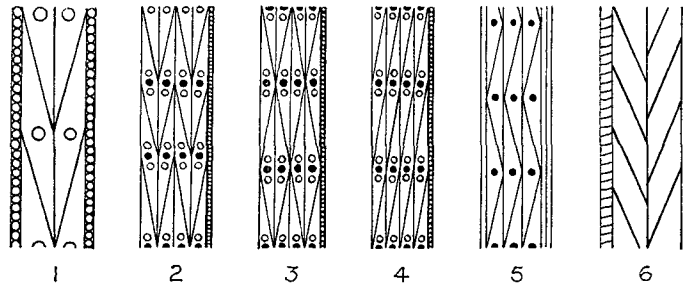


FIG. 1. Diagrams of parallelogram ornamentation, Norrie's Law silver: 1. Earlier pin. 2-5. Knife-handle (?) fragments. 6. Later pin. See Pl. XI. Not to scale

and the device of imitating such filigree with a circular punch would provide a starting point from which the rows and groups of flat circles could have been a natural development. Punched beading is however an obvious trick, found at other periods, as on the fourteenth-century Kames Brooch.<sup>1</sup>

As shown in fig. 1, parallelograms or triangles with dots or circles at their centres should now be recognised as a recurrent motif which will indicate connections in date or locality. There are three variations on the fragments of a silver band from Norrie's Law, and two more on bits of two other bands (all hitherto supposed to have been part of one band).<sup>2</sup> Lines of circles accompany them, Pl. XI, 4. The central finger of the Castletown Kirkpatrick pin has on the front a circle containing two small curvilinear triangles with central dots, such as occur on numerous Irish zoomorphic brooches as Raftery has pointed out.<sup>3</sup> The earlier Norrie's Law pin has a dot in each horizontal arm of its central finger's cross.

The associated silver in the Norrie's Law find ranges in date from a piece of late Roman spoon,<sup>4</sup> to two identical plaques with Pictish symbols: one symbol is decorated with spirals reserved against a (lost) red-enamelled background, as on hand-pins, and the other is an animal head very closely related to the animal style of the Lindisfarne Gospels, and so hardly earlier than *c.* A.D. 700.<sup>5</sup> The technique of 'hair-spring' spirals, however, formed by very fine lines (with occasional trumpet expansions) reserved in relief against enamel, is found at its best on the large escutcheons of the hanging-bowl from the Sutton Hoo grave, the finest known hanging-bowl.<sup>6</sup> Allowing for the small scale of the Gaulcross pin, the parallel may be claimed as making an early seventh-century date possible for it. The ornithomorphic terminations of the spirals on both derive, of course, from a variant of the palmette as found in early Celtic Art.<sup>7</sup>

<sup>1</sup> *P.S.A.S.*, xciv (1961-2), 308.

<sup>2</sup> Anderson, *op. cit.*, fig. 11. Perhaps they formed flattish tubes, and if so were possibly knife-handles, as the Frankish gold examples from Krefeld-Gellep, *Germania*, XLII (1964), Pl. 54.

<sup>3</sup> *P.S.A.S.*, LXXXVIII (1954-6), 229.

<sup>4</sup> *ibid.*

<sup>5</sup> *Problem of the Picts*, ed. Wainwright, F. T., 110-11. *Pace* Thomas, A.C., *Arch. J.*, cxviii (1961), 44; this is only one of several converging lines of evidence about the date of such symbols in the form in which we have them. The plaques have no studs on their backs, or signs of other means of attachment.

<sup>6</sup> *B.M. Quarterly*, XIII (1939), Pl. 51; *Antiquity*, xiv (1940), 30-34, esp. fig. 2; Bruce Mitford, R.L.S., *Sutton Hoo Ship Burial* (B.M. Guide), Pl. 10; *Codex Lindisfarnensis* (facsimile) 1960, II, Pl. 17.

<sup>7</sup> *cf.* the Torrs 'Chamfrein', *c.* 200 B.C., *Archaeologia*, xcvi (1955), 217, fig. 3.

The number of hand-pins in Scotland, and their South Scottish background, and the evidently Pictish origin of the later Norrie's Law pin, make it unlikely that they were mainly an Irish fashion, although more have been found there. The rare hoards emphasise how little is known of the range of metalwork of either country. One may note, however, that the brooches with small circles on the back are known only from Ireland and that both 'dodo-heads' and larger terminations like bird heads are found with spirals on a 'latchet',<sup>1</sup> a type of object also so far unknown from Scotland. Groups of three dots accompany the S-shaped Pictish symbol on the heavy chain from near Inverness.<sup>2</sup> They, as well as hair-spring spirals, are used in the illumination of the mid-seventh-century Book of Durrow, whose Irish origin has been disputed in favour of Northumbria,<sup>3</sup> and in both earlier<sup>4</sup> and later manuscripts; but they go back to the Classical world, as on the hanging dish from the Traprain Treasure. The circular punch is perhaps more specific, and a slightly larger version of it has been used to form a continuous quincunx pattern on the silver ribs round the Ardagh Chalice.

2. *Bracelet* (Pl. XII). This consists of an undecorated strip convex in cross-section (diam. of curve 1 to  $\frac{1}{2}$  in.), 20 in. long, 0.022 in. thick in the centre and some 0.5 to 0.65 in. wide, bent into a spiral of  $2\frac{1}{2}$  turns with a maximum diameter of 2.6 in. The ends are rounded and the edges bevelled on the inside. The outer surface is polished, the inner uneven and hammer-marked. It weighs 1.44 oz. (44.7 grams). The only obvious parallel is provided by fragments from Norrie's Law, which differ mainly in being approximately the same width throughout (0.75 in.) and in having thick flat discs at the ends; they may not have been spirals.

3. *Chain* (Pl. XII). This appears to be unique in Britain, though of a type found in eleventh-twelfth-century Viking-period hoards in Scandinavia.<sup>5</sup> The technique goes back to ancient Ur,<sup>6</sup> and, still in light wire and small rings giving a chain  $\frac{1}{16}$  inch thick, appears in Britain in the gold hoard of perhaps first-century B.C. date from Brougher, Co. Derry.<sup>7</sup> Oriental inspiration may be assumed for the Gaulcross chain, though perhaps at some removes. It is quite unlike the better-known Pictish chains of large double links,<sup>8</sup> for it is made of wire rings bent and fitted into one another, so that each ring contains part of two others. The total length is about 10.75 in., the thickness of the wire some 0.07 in., and the cross-section of the chain a concave-sided half-inch square. The weight is 4.35 oz. (133.3 grams). The 62 links are remarkably close, with a total give or play of only 0.25 in.: Mr Emery's copy has 0.45 in. play and the Scandinavian chains are from the illustrations obviously considerably slacker than that.

<sup>1</sup> Mahr and Raftery, *op. cit.*, I, Pl. 1.8 - only the larger heads are shown in *Antiquity*, *loc. cit.*, fig. 2.

<sup>2</sup> *P.S.A.S.*, xv (1879-80), 67.

<sup>3</sup> *Codex Lindisfarn.*, cit. 255.

<sup>4</sup> *ibid.*, Pl. 20, ms. Milan Ambrosiana D 23 Sup.

<sup>5</sup> Stenberger, M., *Schatzfunde Gotlands*, I, 279-81 and Pl. 49; II, Pl. 227 etc.; *Aarbøger*, 1942 (Skovmand, R., Danske Skattefund), fig. 33.

<sup>6</sup> Thin 'loop-in-loop' chains of square cross-section were part of the regular male head-dress in the First Dynasty: Woolley, C. L., *Royal Cemetery*, Pl. 146 and pp. 366 ff. I am indebted to Dr E. Sollberger for this reference.

<sup>7</sup> *Archaeologia*, LV, ii (1897), Pl. XXII and *J. Cork H. & A. S.*, LXIX (1964), Pl. VII.

<sup>8</sup> *P.S.A.S.*, LXXXVIII (1954-6), 228.

## 2. METHOD BY WHICH THE REPLICA OF THE WIRE CHAIN WAS MADE

In attempting to produce a replica (Pl. XII) the first difficulty encountered was in accurately determining the dimensions of the links of the original. Calculations based on the overall weight and the thickness of the wire (not easily measurable and far from constant) gave a figure for the length of wire in each link which proved surprisingly accurate, and it seemed reasonably certain that this length would have been achieved originally by winding wire round a mandrel of appropriate size (1 in. diam.), cutting and soldering.

Experiments showed that it was virtually impossible to produce a regular chain simply by bending the rings with pliers.

In order to pass each link through the loops of the two preceding ones, it must first be completely flattened; it must then be opened out to a figure of eight shape

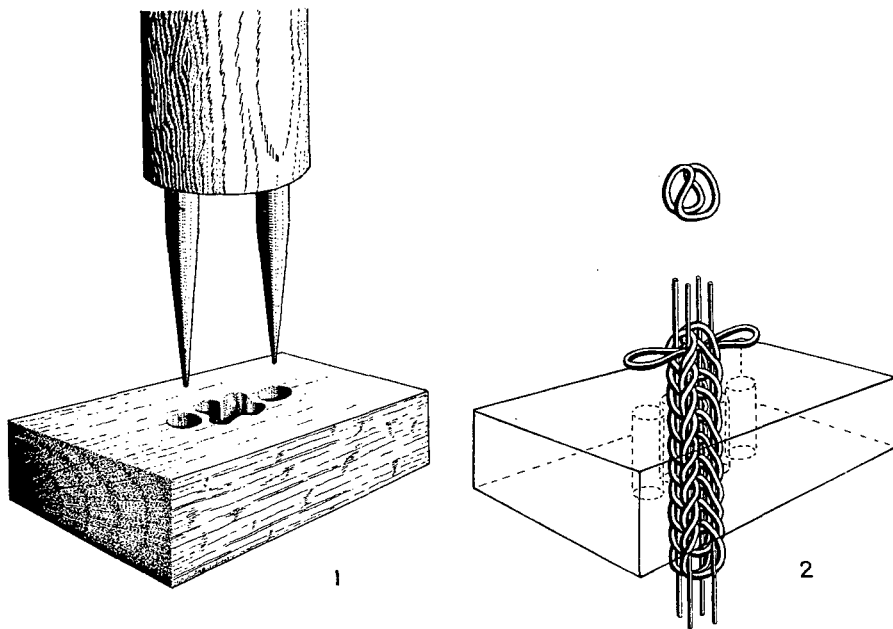


FIG. 2. Pronged tool and die, devised for making replica chain

in a plane perpendicular to the chain length before being folded to its final shape. To do this evenly with pliers alone is very difficult, and so a two-pronged tool was evolved (fig. 2, 1) and used in conjunction with a hardwood 'die' shaped as shown in fig. 2, 2 which supported the link while it was opened and also kept it centred on the part of the chain already completed. After the new link had been opened up to shape, pushing the chain through the die served to bend up the loops to the point where they could be pinched together with a pair of tongs.

After some trials, it was found necessary slightly to correct the shape of the loops after bending, by patting over a small stake of crescent section. Since it was possible

to pass four wires through the corners of the original, it seemed reasonable to suppose that it had been formed with such guides in position. These guide wires helped to keep the links symmetrical during the closing process. The soldered joints, which are in any case very unobtrusive, are hidden in the middle of the chain.

The sequence of operation evolved was as follows:

1. Anneal wire (gauge 15) in the coil.
2. Wind round the mandrel and cut.
3. Correct ring shapes (with fingers) and solder.
4. Flatten rings completely and re-anneal.
5. Feed the flattened ring through previously formed loops (the first three were bent up with pliers, and being irregular, were subsequently cut away).
6. Open out loops by pushing the prong tool through.
7. Fold by pushing the completed chain through the die block, using a small forked punch.
8. Close up the loops and finish over the stake.
9. Feed the four wires up through the completed chain ready for the next link.

This became hard when about thirty links had been completed.

The resulting chain was regular and of the right general form, but, in spite of every effort to keep it tight, it was nearly two inches too long and had far too much slack. The only way of taking this up which worked was to draw successively thicker wires through the corners one at a time: to do this, wires of the next gauge up were tapered down and silver soldered to the previous ones, and then pulled through with a tension of about 100 lb. weight. Each stage, by opening up the corners of the links, both reduced the length and took up the slack, and the final result for both was within  $\frac{1}{16}$  in. of the original measurements. At the time of undertaking the task of producing the replica, the writer was wholly ignorant of chain-making procedures, and the whole sequence of operations was evolved for the one specific requirement.

The process is reminiscent of what is sometimes called 'French knitting' (not to be confused with 'tattooing'), and it is significant that the Museum possesses two fragments of about ninth-century date (from Croy and Ballinaby) of the 'trichinopoly' chains made from a continuous thin silver wire by some such process (*Archaeologia*, xcvi 1961, 63). To make a chain of the Gaulcross type without such tools as those used in making the replica, and in particular to achieve the remarkably small slack of  $\frac{5}{16}$  in. per foot, without resorting to the tightening process described, would appear to be a difficult feat, and unless someone else can manage it I should hesitate to regard it as possible.

The form of the 'die' is highly distinctive: while the one used for the replica was made of hardwood, bone would be in many ways a more suitable material, and such a tool might possibly have survived.

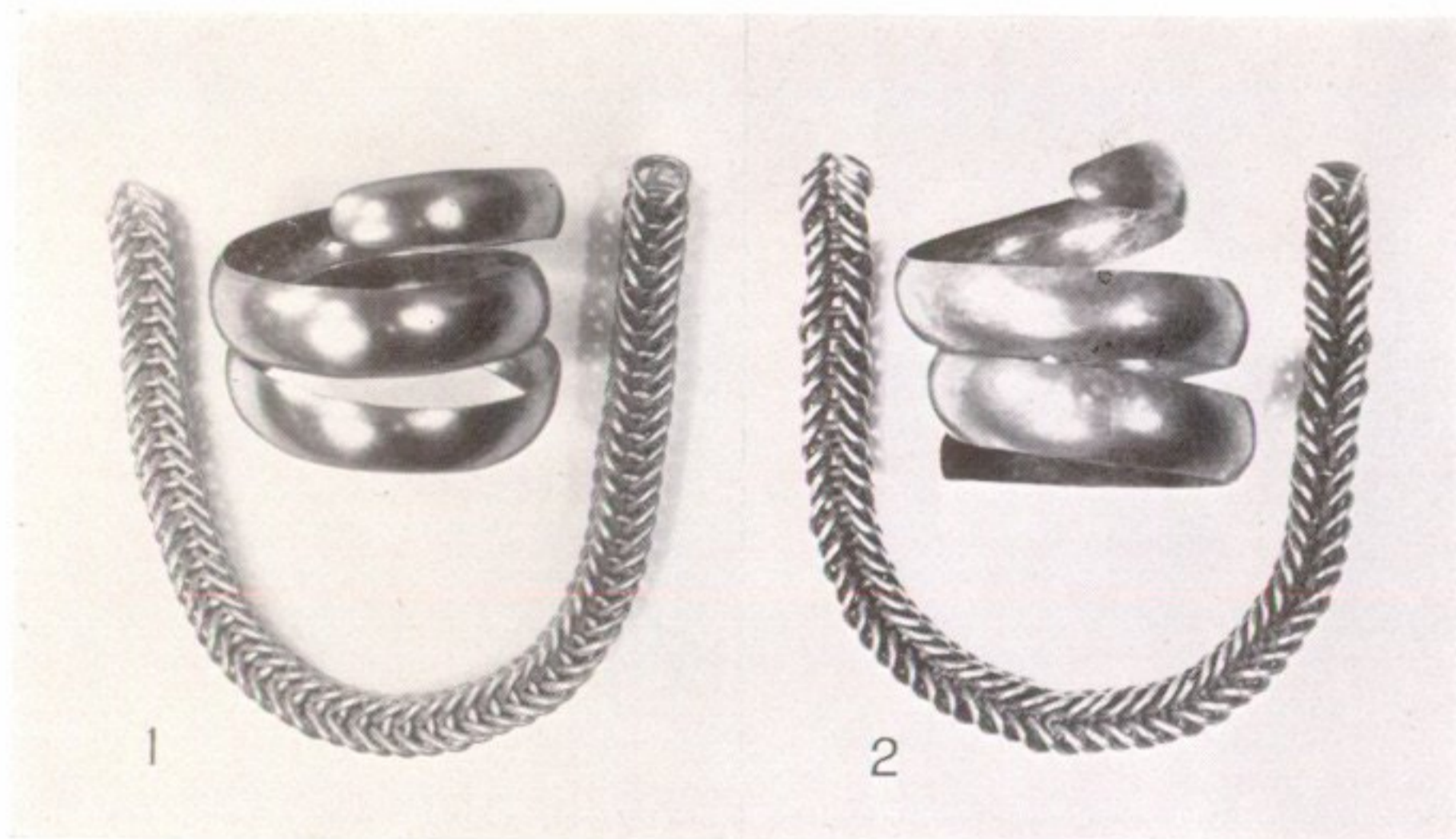




Heads of hand-pins: 1. Gaulcross, Banffshire; 2-3. Norrie's Law, Fife (2/1); 4. Fragments of knife-handles(?), Norrie's Law (c. 1/1)

STEVENSON: GAULCROSS HOARD.





Silver chain and bracelet; 1. Gaulcross, Banffshire;  
2. Reproductions ( $\frac{1}{2}$ )