

## II.

NOTICE OF A HOARD OF BRONZE IMPLEMENTS RECENTLY FOUND  
IN LEWIS. BY JOSEPH ANDERSON, LL.D., ASSISTANT SECRETARY  
AND KEEPER OF THE MUSEUM.

In May last an interesting hoard of bronze implements was turned up in a peat moss by Donald Murray, Adabrock, in the parish of Ness, at the northern extremity of the island of Lewis. The finder was digging peats for fuel at a depth of 9 or 10 feet from the original surface of the moss when he came upon the hoard "all in one group, the small things above and the heavier below." The hoard was acquired for the Museum, and the following is a detailed description of the different objects of which it was composed.

There was no evidence visible to the finder of any receptacle, such as a box of wood or a bag of any kind, in which they might have been contained for convenience of carriage. But when the find came to be examined at the Museum, it was seen that there were in it two pieces of very thin bronze, greatly decayed, which may indicate that the objects were contained in a bowl or vessel of thin beaten bronze of considerable capacity. One piece is part of the lip, and the other shows the turning in of the bottom of a vessel that may have been large enough for the purpose. The upper piece (fig. 1), showing the lip, which is cut off plain at the top, having neither moulding nor turnover, is ornamented on the exterior, immediately under the margin, by a band of faintly chased lines parallel to each other and to the rim, with a series of triangles impinging on the lower margin of the band. The band itself consists of an upper and lower line, a quarter of an inch apart, enclosing midway between them a group of three thinner lines placed close together in a space of little more than a sixteenth of an inch in width. The triangles are arranged with their bases set close together along the lower line of the horizontal band.

The bases are about three-eighths of an inch in breadth, and the equal sides of the triangles are about three-quarters of an inch in length. Each triangle is filled with lines drawn parallel to its right-hand side and less than a sixteenth of an inch apart. This is a not uncommon motive of Bronze Age ornament.

Besides these two pieces of thin bronze the hoard consisted of two socketed axes of different sizes, a socketed gouge (figs. 2, 3, 4), a spear-head with rivet-holes in the socket, a tanged chisel with stop-ridge and expanding curvilinear cutting edge; a socketed hammer (figs. 5, 6, 7), three thin oval tanged blades (figs. 8, 9, 10) of the variety

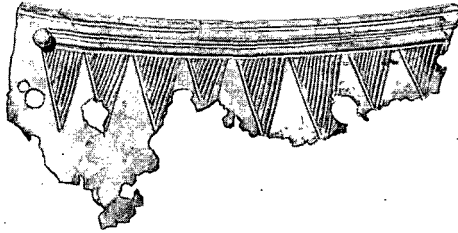
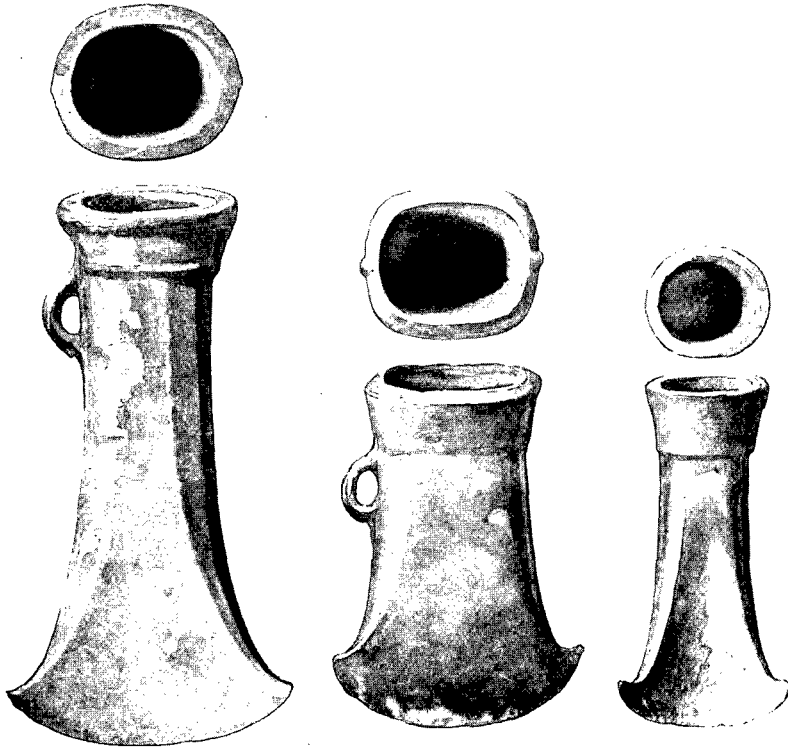


Fig. 1. Piece of a vessel of thin bronze from the Adabrock hoard, showing the lip and ornamentation. ( $\frac{2}{3}$ .)

now generally described as razors—all of bronze; a doubly conical bead of thin beaten gold, and two beads of amber and one of greenish glass with faint white spots (figs. 11, 12, 13, 14). There were also two whetstones, or polishing stones, one of fine sharp sandstone and the other of a hard, close-grained, dark-coloured micaceous claystone with planed edges and its broad face polished by use.

Of the two socketed axes, the larger (fig. 2) measures  $4\frac{1}{8}$  inches in length by  $2\frac{1}{4}$  inches across the expanded cutting face, which is curvilinear. The socket is oval, 1 inch by  $\frac{7}{8}$  inch across the aperture, wedge-shaped in the section of its depth, which is 3 inches, and has small pieces of wood adhering to the sides of its interior, while a larger piece remains jammed in the bottom of the socket, doubtless

a portion of the end of the haft. The oval mouth of the socket is finished off by an exterior moulding projecting about an  $\frac{1}{8}$  of an inch ; a quarter of an inch below it there is a slight projecting ring, under-



Figs. 2, 3, and 4. Two socketed Axes and Gouge from the Adabrook hoard. ( $\frac{2}{3}$ .)

neath which the neck of the axe loses its oval shape and becomes octagonal. The marks of the junction of the two halves of the mould, which have not been quite cleaned off, are visible on the two sides corresponding to the ends of the longer diameter of the oval socket.

On one of these sides is a loop projecting  $\frac{5}{16}$  inch immediately below the collar. The width of the octagonal neck of the axe below the loop is 1 inch; from this it widens gradually to about two-thirds of the total length, and then more suddenly as it thins towards the cutting edge.

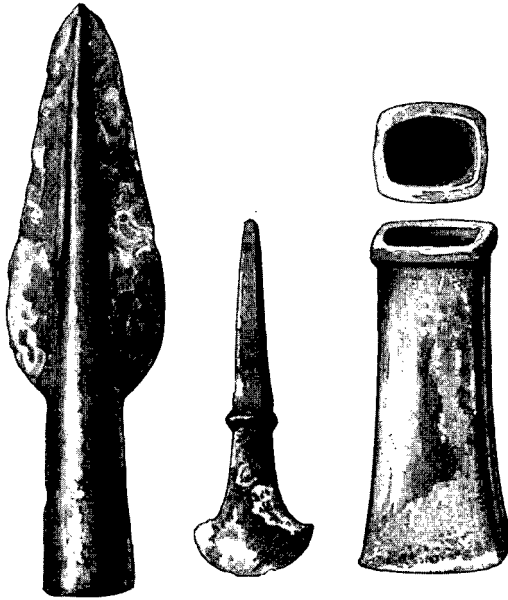
The smaller axe (fig. 3) measures  $2\frac{5}{8}$  inches in length by 2 inches across the cutting face. The socket is ovaly quadrangular,  $1\frac{1}{8}$  by 1 inch, and wedge-shaped in the section of its depth, which is  $2\frac{1}{8}$  inches. The mouth of the socket is slightly bevelled towards the exterior, and there is a very slight moulding, visible on one side only,  $\frac{1}{2}$  inch below the mouth. The loop is placed immediately under this moulding on one of the narrow sides, and the mark of the junction of the two halves of the mould runs over the loop.

The gouge (fig. 4) measures  $2\frac{5}{8}$  inches in length by  $1\frac{3}{8}$  inches across the cutting edge. The socket is circular,  $1\frac{1}{8}$  inch in diameter at the mouth, and wedge-shaped in the section of its depth, which is 2 inches. The exterior is circular for half an inch below the brim of the socket, where there is a very slight moulding, underneath which the shape becomes octagonal, the two sides forming the front and back of the tool becoming gradually wider than the others towards the cutting edge.

The spear-head (fig. 5) measures  $4\frac{5}{8}$  inches in total length, the leaf-shaped blade being 3 inches in length and  $1\frac{1}{4}$  inches in greatest width. The socket has been cored to within  $\frac{3}{4}$  inch of the present point of the weapon. Two rivet-holes, almost  $\frac{1}{4}$  inch in diameter, are placed on opposite sides in line with the blade and half an inch from the base of the socket. The socket part of the weapon tapers gradually to the very point, forming a midrib to the whole length of the blade.

The tanged chisel (fig. 6) measures  $2\frac{3}{4}$  inches in length, of which the tang is  $1\frac{1}{2}$  inches and the blade  $1\frac{1}{4}$ . There is a stop-ridge between the lower end of the tang and the upper end of the blade. The blade is shaped like an axe, with a curvilinear expanding cutting edge.

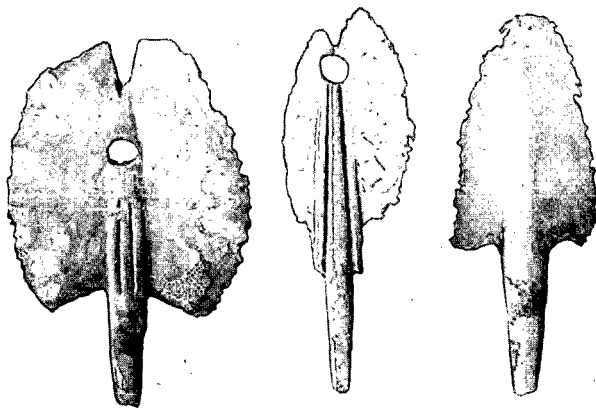
The socketed hammer (fig. 7) measures  $2\frac{5}{8}$  inches in length. It is quadrangular in the cross section, with slightly rounded sides expanding slightly from the socket end to the working end, which shows signs of use. The working face of the hammer presents a surface of  $1\frac{1}{8}$  by  $\frac{3}{4}$  inch, slightly rounded by wear towards the edges. The



Figs. 5, 6, and 7. Spear-head, tanged chisel, and socketed hammer from the Adabrock hoard. ( $\frac{2}{3}$ .)

socket is  $\frac{3}{4}$  by  $\frac{1}{2}$  inch and  $1\frac{1}{2}$  inches in depth, narrowing very slightly towards the bottom instead of being wedge-shaped, as those of the cutting implements necessarily are. The mark of the junction of the two halves of the mould in which it was cast remains uncleaned away as a rather prominent ridge down the middle of its two narrower sides.

Of the three flat and thin tanged blades, the largest and most entire (fig. 8) has a total length of  $2\frac{3}{4}$  inches, of which the length of the tang is  $\frac{3}{4}$  inch. The blade, which is oval in outline, with straightened ends obliquely impinging upon the tang on opposite sides at the base, has had a bifid termination at the upper end produced by a triangular cleft in the middle  $\frac{1}{4}$  inch in width at the upper end, and  $\frac{3}{8}$  inch in depth. Half an inch below the lower termination of the cleft is a circular perforation in the centre of the blade



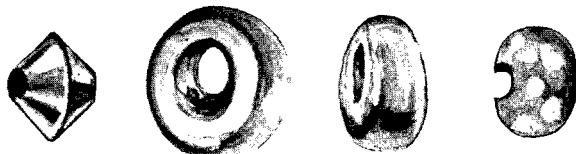
Figs. 8, 9, and 10. Three Razors from the Adabrock hoard. ( $\frac{3}{8}$ .)

$\frac{1}{4}$  inch in diameter. The tang, which is  $\frac{1}{4}$  inch in breadth, is continued as a thickening up the middle of the blade as far as the central perforation, and is ornamented by two parallel lines  $\frac{1}{16}$  inch apart, which have been produced by a chasing punch with a very small rounded point.

The second blade (fig. 9) is of the same character, but considerably more frayed away at the edges. Its extreme length is 3 inches, of which the tang is almost 1 inch. A portion of the cleft producing the bifid termination at the upper end remains, and the perforation immediately below it is rather less in diameter and less regularly

circular. The tang, which is about  $\frac{3}{16}$  inch in width at its junction with the blade, is carried up the centre as a very slight thickening, tapering towards its termination at the perforation, and emphasised by a slight moulding on either side.

The third blade (fig. 10) is also very much frayed away at the edges. It is of plainer character than the other two, and shows neither chasing nor perforation. Its extreme length is 3 inches, of which the tang forms fully 1 inch, and the greatest breadth of the blade at the base is  $1\frac{1}{8}$  inches. The tang, which is  $\frac{5}{16}$  inch in width at its junction with the lower part of the blade, tapers slightly to the base, and from



Figs. 11, 12, 13, and 14. Beads of gold, amber, and glass from the Adabrock hoard. (†).

its junction with the blade to the point forms a slightly thickened and rounded midrib. It now shows no indication of a bifid termination.

The bead of gold (fig. 11) is formed of two sections of thin gold plate beaten into the shape of a cone and joined together at their bases. The diameter of the bead across the bases of the cones is  $\frac{1}{2}$  inch, and the diameter in the direction of the axes of the cones is  $\frac{3}{8}$  inch. The hole which served to string the bead is pierced through the apices of the cones, and is worn slightly oval by use.

The two beads of amber (figs. 12 and 13) are sections of a cylinder  $\frac{3}{4}$  inch in diameter, the sides flat and the edges rounded and polished all over. The flat sides are not parallel to each other but inclined towards each other, so that the one edge of the bead is fully  $\frac{1}{8}$  inch thicker than the other. They are pierced in the middle from side to side by an oval hole a  $\frac{1}{4}$  inch in its longer and about  $\frac{2}{16}$  inch in

its shorter diameter, placed so that the longer diameter lies in the direction of the slope of the sides. Thus when strung as part of a necklace they would adjust themselves to the curve.

The bead of blue glass, or vitreous paste (fig. 14), is an oblate spheroid  $\frac{1}{2}$  inch in greatest diameter, and pierced in its shorter diameter by a cylindrical hole slightly less than  $\frac{1}{8}$  inch in width and  $\frac{7}{16}$  inch in length. The exterior of the bead is smooth, and slightly mottled by small spots of a greyish-white, irregularly placed.

The two whetstones or polishing stones are natural pebbles of irregular trapezoidal shape. The smaller of the two is of a very soft, sharp-grained sandstone, about 2 inches in length by  $1\frac{3}{4}$  in greatest breadth and  $\frac{3}{4}$  inch in thickness, its broad faces flattened and all its edges rounded by use. The larger is of a hard, dark-coloured, micaceous claystone,  $3\frac{1}{4}$  inches in greatest length by  $2\frac{1}{4}$  in greatest breadth and  $\frac{1}{2}$  inch in thickness, its broad faces being similarly smoothed and its edges rounded by use.

The significance of the bronze hoards which occur with more or less frequency throughout the British Isles and on the Continent of Europe appears to be that they were deposited for temporary concealment, and that their owners or depositors, for reasons now unknown, failed to resume possession of them. Sir John Evans points out that they appear to fall into three classes:<sup>1</sup> (1) Hoards that have been the private property of an individual owner; (2) hoards that were probably the property of a trader, as they consist of objects ready for use and in considerable numbers; and (3) hoards that appear to have been the stock-in-trade of a bronze-founder, as they contain worn-out and broken tools and weapons, lumps of rough metal or portions of castings, and, in some cases, the moulds themselves. He instances the Wallingford hoard as a good example of a private deposit, consisting of a socketed axe, gouge, and knife,

<sup>1</sup> *Ancient Bronze Implements of Great Britain*, p. 457.



and a tanged chisel and razor, the last of which is bifid at the point and pierced by a small perforation under the cleft. On the whole, this hoard is very similar to the Adabrock deposit, which may be fairly classed as a private hoard by a person who was neither a trader nor a founder. All the three classes of hoards naturally vary greatly in the number and character of the articles of which they are composed. As a rule, the private hoards are the smallest, the traders' hoards being mostly considerably larger, while the founders' hoards may be of any size up to thousands of objects. The largest I have seen is that at Bologna,<sup>1</sup> consisting of upwards of 14,000 pieces of manufactured bronze, and weighing upwards of a ton and a half, found in a gigantic earthenware vessel. This hoard fills a room in the Bologna Museum, the gigantic jar standing in the middle of the floor and the objects found in it arranged in the wall-cases round the room.

One feature which distinguishes the Adabrock hoard from the general character of these deposits is the presence of the amber and glass beads and the bead of gold. These personal ornaments may have belonged to the wife or daughter of the owner of the rest of the hoard, which consists of five industrial tools, one weapon (a spear-head), and three razors,—all of which are fit for use, and have apparently been in use, and were meant to be kept serviceable by the two whetstones found with them.

The two axes (figs. 2, 3) are of the socketed type, and of a variety common to Scotland and Ireland. Axe-heads of bronze perforated to receive a straight handle like the hammers and hammer-axes of stone have not been found in Britain, though they are not unknown in South-eastern Europe and to some extent in Scandinavia. The method of hafting these socketed axes of bronze was obviously by inserting into the socket the short end of a branch or handle with an elbow-like projection from one side close to the end, and passing a cord through the loop of the axe, which was then tightly fastened

<sup>1</sup> Zannoni, *La Fonderia di Bologna* (1888).

to the longer handle part of the haft so as to hold the axe-head back upon the part inserted in the socket. As a matter of fact, there remains in the bottom of the socket of the larger of the two axes a small portion of the broken-off end of the handle.

The socketed gouge (fig. 4) is of the common variety which ranges from the Mediterranean to Northern Europe. The purposes to which these tools could be adapted are obvious, but one purpose special to the Bronze Age—for clearing out the cores from the castings of socketed tools—has also been suggested for them. For this special purpose, the gouge with straight sides and the chisel of the same character would be better adapted than those in this hoard, which have considerable expansion towards the cutting edge, and are apparently more of the nature of tools for carpentry. This gouge, with its circular expansion at the cutting edge, would serve admirably for planing the rounded handles of axes and other tools.

The chisel (fig. 6) has a tang for the handle and a stop-ridge to prevent its being driven up into the handle while in use. The blade is shaped like an axe, with a curvilinear expanding cutting edge. Chisels of this form are rare in Scotland. There is one in the Museum from the Glenluce Sands.

The spear-head (fig. 5), which is the only weapon in the hoard, is of the commonest and simplest variety, the blade leaf-shaped and the socket pierced by two rivet-holes between the base of the blade and the termination of the socket, through which to pass the rivet that fastened the head of the spear to the shaft. The rivet itself is wanting, and the spear-head was obviously separated from the shaft when deposited in the hoard. Spear-heads are perhaps the commonest of the weapons occurring in hoards in Britain, and occasionally occur in considerable numbers, although a single spear-head is not an uncommon feature in many hoards.

The hammer (fig. 7), which weighs barely  $5\frac{1}{2}$  ounces and is of the usual socketed variety, is the only example hitherto found in Scotland.

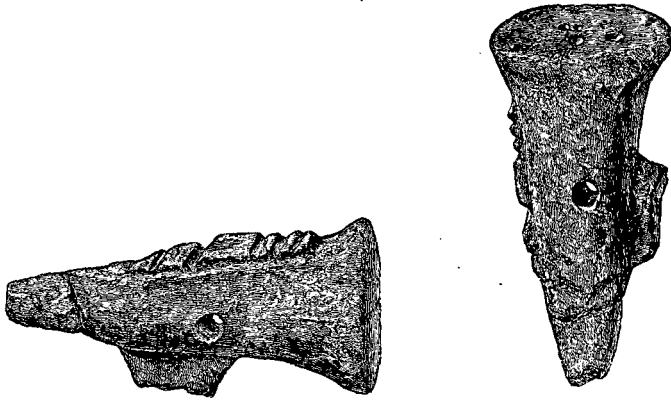
They have occurred about a dozen times in bronze hoards in England, and are even more common on the Continent, especially in the Swiss lake dwellings of the Bronze Age. The hammers of the Bronze Age were always very light tools compared with those of subsequent periods, their use being chiefly for beating out the damaged thin edges of small blades such as knives, sickles, razors. They might also be used in beating out thin vessels of bronze or making small articles of personal ornament. It has been remarked that it is strange to find the persistence of this awkward mode of hafting a hammer in preference to putting a straight handle through the hammer-head, especially seeing that stone hammers so handled are so common. But the universal custom of the time, both in the case of socketed axes and socketed hammers of bronze, seems to have arisen from the necessity of economy in the metal, which must at all times have been comparatively scarce and costly.

The complement of the hammer is the anvil. Anvils, like hammers, are by no means of common occurrence in any part of Europe, and only one (figs. 15 and 16) has hitherto been found in Scotland.<sup>1</sup> The precise circumstances in which it was found are unfortunately unknown, all that is on record being that it was said to have been found in a cairn near the Kyle of Oykel in Sutherlandshire about the year 1871. By the courtesy of the late Duke of Sutherland it has been deposited in the National Museum. It is of remarkably small size, as all Bronze Age anvils are, measuring less than 4 inches in length and weighing only 10½ ounces. It is made with two beaks or tapering extremities placed at right angles (one being unfortunately broken), so that, by fitting either of them into a block of wood, the anvil may be used in two different positions, the one presenting a plain oval hammering face and the other an oblong face provided with a series of swages or depressions of different widths and depths for drawing out slender rods or wires or pins by the hammer. Sir John Evans

<sup>1</sup> *Proceedings*, vol. xvi. p. 23.

figures <sup>1</sup> a somewhat similar anvil found in a hoard in Calvados, France, accompanied by a socketed hammer, a spear-head, a knife, two curved blades with socketed ends, and a razor, all of bronze, and a magnificent torc and a solid penannular arm-ring of gold.

The three oval tanged bronze blades (figs. 8, 9, 10) are all of the same general form, though presenting differences in detail that are readily recognisable. They also closely resemble others found in Scotland and



Figs. 15 and 16. Bronze Anvil found in Sutherland, showing the two positions in which it was used. ( $\frac{1}{2}$ .)

elsewhere, as will be indicated further on. Meanwhile, it may be desirable to review the evidence for the attribution of the purpose of these bronze blades as instruments for shaving. At first they were considered as arrow-heads or, alternatively, as thin knife blades for special purposes, but gradually the special purpose was by general consent attributed to shaving, and the name of razors given without disguise. Without entering into the history of the growth of that opinion, which is now generally accepted, it may be sufficient to give an abstract of the description of the latest writer on the subject,

<sup>1</sup> *Ancient Bronze Implements of Great Britain*, p. 182.

Dichelette,<sup>1</sup> who says :—“ The use of the razor appears to have been habitual among Europeans in the Age of Bronze from Scandinavia to the Mediterranean. The representations of male persons in Egean, Mycenaean, Sardinian, and Scandinavian art have the face either completely without beard or partly shaved like the ancient Egyptians. Moreover, the razor of bronze is not only known by the discoveries in the Swiss lake dwellings, the terramaras of Italy, and the hoards and sepulchral deposits of western and southern Europe generally, but are met with frequently in Crete and at Mycene, and in Italy, Sicily, and Sardinia.” As to their occurrence in Britain, Sir John Evans<sup>2</sup> mentions their presence in four of the one hundred and ten bronze hoards he has tabulated in England, and four are mentioned by Dr Thurnam<sup>3</sup> as coming from burials also in England, while four have been described in Ireland.

Razors have not occurred in any of the bronze hoards that have been previously found in Scotland, but they are not uncommonly associated with burials. These are separable into a variety with a broad bifid blade and a variety in which the blade is a long oval with decorated centre part.

Three of the first variety (figs. 17, 18, 19), very like those found at Adabrock, were found at Bowerhouses, near Dunbar, in 1822, and are now in the Museum. The circumstances of the find are very vaguely given,<sup>4</sup> but they are said to have been associated with a socketed axe of bronze, and to have been found in one of two urns discovered at the same time along with burnt bones.

The earliest find of the second variety with the oval decorated blade was in a grave-mound at Newbigging, near Penicuik, which

<sup>1</sup> *Manual d'Archeologie Prehistorique, Celtique et Gallo Romaine, Age du Bronze*, p. 261.

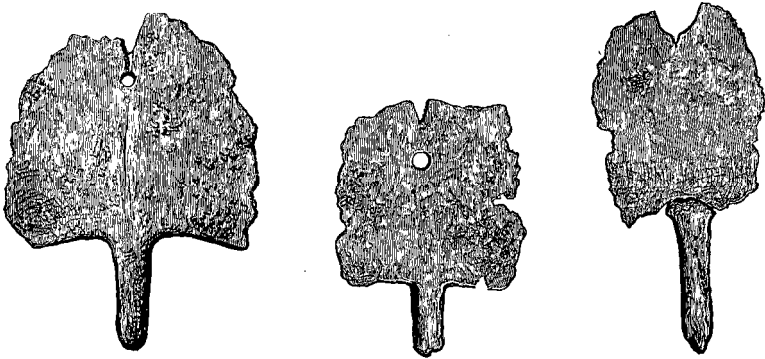
<sup>2</sup> *Ancient Bronze Implements of Great Britain*, pp. 218, 460.

<sup>3</sup> *Archæologia*, vol. xliii. p. 451.

<sup>4</sup> *Archæologia Scotica*, vol. iii. p. 44 ; *Proceedings*, vol. x. p. 439.

was opened by Sir John Clerk previous to 1725. He describes the mound as containing three urns with incinerated bones, and in one of the urns with the bones was a small oval tanged blade, ornamented in the centre part by an oval with chequers of lozenge-shaped spaces filled with parallel lines. It has been figured by Alex. Gordon,<sup>1</sup> so that there can be no doubt as to its character.

A similarly ornamented blade (fig. 20) was found about the year 1834 in the central cist of a burial-cairn at Rogart<sup>2</sup> in Sutherland.



Figs. 17, 18, and 19. Three Bronze Razors found at Bowerhouses, near Dunbar.

No urn was observed by the persons who removed the cairn, and the record does not mention whether the bones were burnt or unburnt, but there can be no doubt that it was a burial deposit.

Another Sutherland example (fig. 21) was found in 1848 at Balblair<sup>3</sup> in the parish of Creich, in a cairn among burnt bones covered by an inverted cinerary urn. It is ornamented in the central part by a long pointed oval bordered by a slightly raised rope moulding, and the interior filled by cross-hatched lines.

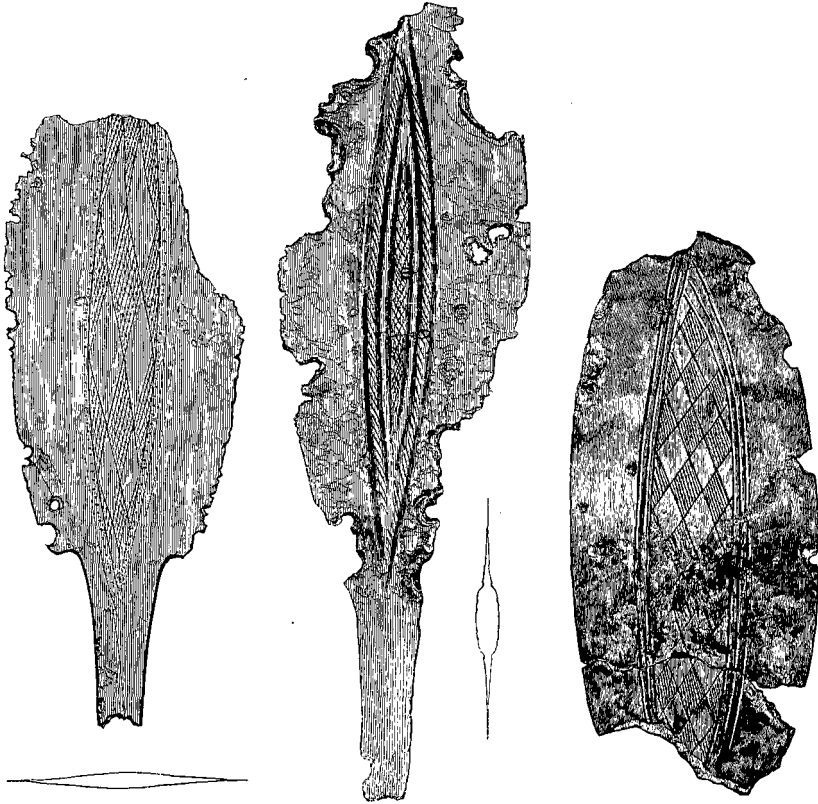
A plain oval blade, presumably of the same character, measuring

<sup>1</sup> *Itinerarium Septentrionale*, p. 110, pl. 8 (1726).

<sup>2</sup> *Proceedings*, vol. x. p. 431.

<sup>3</sup> *Ibid.*, vol. x. p. 433.

2 inches in length by scarcely 1 inch in breadth, and nowhere exceeding  $\frac{1}{10}$  inch in thickness, the tang broken off, was found at Lierabol



Figs. 20, 21, and 22. Bronze Razors from Rogart, Balblair, and Magdalen Bridge.

in the Strath of Kildonan, Sutherland, in a tumulus or cairn, under an inverted cinerary urn amongst the burnt bones.<sup>1</sup> Other two plain blades, which are preserved in the St Andrews Museum, were

<sup>1</sup> *Proceedings*, vol. x. p. 434.

found in a Bronze Age cemetery at Law Park, from which about twenty cinerary urns were recovered in 1850.<sup>1</sup>

The three blades from Sutherland are in the Dunrobin Museum.

One,  $2\frac{3}{4}$  inches in length (without the tang, which is broken off) and  $1\frac{1}{4}$  inches in greatest breadth, has its central part ornamented by lozenge-shaped chequers enclosed in a long oval (fig. 22). It was found among the burnt bones in a large cinerary urn in a Bronze Age cemetery at Magdalen Bridge,<sup>2</sup> near Musselburgh, and is now in this Museum.

Another (figs. 23 and 24), and the last I shall mention, was found in a Bronze Age cemetery at Shanwell, Kinross-shire.<sup>3</sup> It is slightly different from those previously mentioned, inasmuch as it has a broad flat tang at the base of the blade, pierced by a rivet-hole. The ornamentation on the central part of the blade on both sides (figs. 23, 24) is of the usual character, but is enclosed in a rectangular border.

To return to the question of the significance of the three razors in the Adabrock hoard: it is to be noted that the occurrence of three together is paralleled by the discovery of three together at Bowerhouses, Dunbar. Perhaps a special significance may be attached to the occurrence of the hammer and the two whetstones in the same hoard with the three razors. Razors require frequent sharpening, and the only way of effectively sharpening any of the cutting tools of bronze was by beating out a very thin edge with the hammer, which might be made much keener by the whetstone.

We now come to the personal ornaments, which form a rather unusual accompaniment of a bronze hoard. They consist only of one kind—beads, worn presumably by a female, who may have been the wife or daughter of the owner of the hoard,—assuming that the deposit was made by the owner of the property and was not stolen or captured, in which case it would probably have been even more miscellaneous in

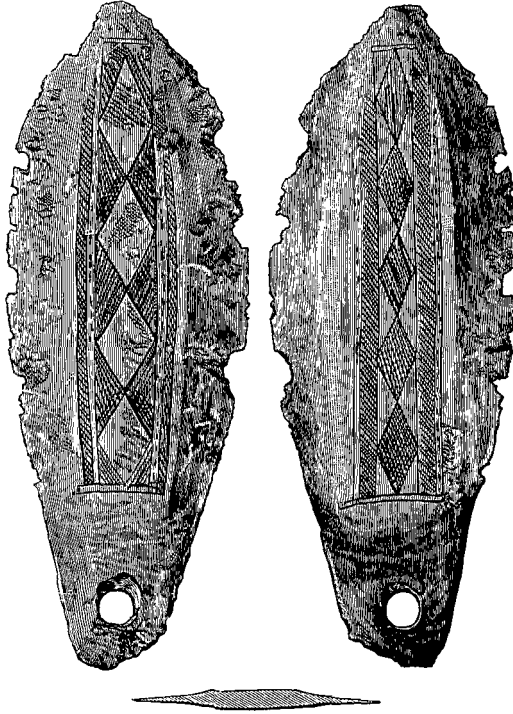
<sup>1</sup> *Proceedings*, vol. x. p. 436, and vol. xli. p. 412.

<sup>2</sup> *Ibid.*, vol. xvi. p. 424.

<sup>3</sup> *Ibid.*, vol. xix. p. 115.



character. It is a small collection of personal ornaments, but they are rather costly in character for the time, all being of rare occurrence. The one bead of gold is of a form well known as occurring not infre-



Figs. 23 and 24. Bronze Razor found at Shanwell, showing the ornamentation on both sides.

quently in Britain. Fifteen of them strung upon a wire of gold, were found in 1814 under a cairn at Chesterhope, Northumberland,<sup>1</sup> and seven were dug up in draining in the parish of Lillington,<sup>2</sup> Dorsetshire, with fragments of a hollow rod of gold on which they appear to have been strung.

<sup>1</sup> *Archæologia Æliana*, vol. i. p. 1.

<sup>2</sup> *Archæological Journal*, vol. vii. p. 68.

The two amber beads may be of British or Baltic derivation. Amber is found occasionally on the east coast of Britain, but chiefly on the Baltic coasts. Beads of this character have occurred somewhat frequently in association with Bronze Age burials in England, and in Scotland they occurred in the bronze hoard from Balmashanner, Forfarshire.<sup>1</sup> Beads of pale bluish glass with spots have also occurred not infrequently in Bronze Age burials in England, but they do not seem to have occurred in any hoard that I have seen recorded.

To sum up the features of this hoard: it appears to be neither the hoard of a trader carrying new and unused implements for sale, nor of a founder collecting old, disused, and damaged implements to be melted down and re-made. All the implements in it are such as have been in use, and are still usable, and meant to be kept serviceable by the hammer and whetstones found with them. Five of the tools are for woodwork and three are for shaving, so that the man may have been a travelling wood-worker and barber, and the ornate bronze vessel which seems to have contained the hoard may have been his barber's basin.

With regard to the period when the deposit was made, the socketed axes, gouge, hammer, and spear-head belong, not to the early, but to the later part of the Bronze Age, when the artificers had thoroughly mastered the most difficult problems of the founder's art, and could produce cored sockets, and were able to finish the implements as well as they could be produced and finished to-day. The indications given by the depth of the peat under which it was found might have been of some service in estimating the probable length of time that has elapsed since the deposit was made, if we could ascertain the rate of accumulation of the peat. But that rate differs very widely according to situation and circumstances. Captain Thomas, investigating the growth of peat in the Lewis,<sup>2</sup> says: "If the theory of a growth of an inch of peat in fifteen years is correct,

<sup>1</sup> *Proceedings*, vol. xxvi. p. 186.

<sup>2</sup> *Ibid.*, vol. vii. p. 194.

the whole moors of Lewis—even taking the normal depth at 9 feet—have accumulated in seventeen centuries, and other circumstances incline me to think these figures are near the truth.”

The craving for dates in the pre-historic is the result of our having all our lives been accustomed to think of past time historically. Dates belong exclusively to history, and, if they are genuine dates, are the product of record. To be able to express a date in years you must have two points in time which are found by record—the point you reckon from and the point you reckon to. But there are no such fixed points in unrecorded time. Notwithstanding this, it has been not uncommon for geologists and archæologists to supply their readers with these impossible “dates,” apparently on the principle that if you cannot get a date you can guess it. This is very misleading to the plain man, who, when he finds out that what he took on the faith of the reputation of the writer as genuine dates are only guesses, is apt to feel that he has not been fairly dealt with. And the utter futility of it is evident when it is considered that the guesses are all different—some of them, such as those at the age of the earth or the antiquity of man, differing by thousands and even millions of years—and that no one on earth can tell, or guess, which of them is nearest to, or furthest from, the truth.

To those who have all their lives been accustomed to think historically, it is difficult to conceive of a chronology which cannot be reckoned in years or centuries. But a scientific or relative chronology expressing itself in periods and sequences for pre-historic time answers all the purposes of science, and is quite satisfactory to the man who has learned to think of past time scientifically. Geology has its three great periods divided into many formations the sequence of which is ascertained, and archæology has its three great periods with their subdivisions the sequence of which is ascertained or ascertainable. When we say of a deposit, as we are able to say of this deposit, that it belongs to the later part of the Bronze Age of Britain, we

understand that it must be considerably earlier than the Christian era, as the Iron Age had been well advanced in the south of England before the landing of Julius Cæsar in 55 B.C.