

DAVID BROWN

Firesteels and Pursemounts again

The controversy about the objects which some call pursemounts (Taschenbügel) and others firesteels or strike-a-lights¹ (Feuerstahl) is well over a hundred years old, and there is no sign of it abating. The latest discussion, that of A. Roes, claims essentially that those pieces which have a buckle are pursemounts, and those without a buckle are firesteels². This view has been put forward before, and there are signs of it now becoming widely accepted, despite the fact that it ignores some very good arguments to the contrary. For this reason I propose to go through the various arguments again.

I should like to begin by considering the piece from Krefeld-Gellep, grave 43, and to restate some of R. Pirling's observations and conclusions about this piece, for they have formed the basis of my thinking³. The object is made of iron (fig. 1). It is inlaid with silver and brass. The inlay is on one side only. The arrangement of the inlay leaves the straight edge of the object undecorated. This straight edge is thick (5 mm). On the side opposite the undecorated straight edge, there is a buckle in the middle, and beaked bird heads at each end. Both buckle and bird heads are also covered with inlay. The object has no holes in it by which it could be rivetted to leather or any other material. The object was found with a flint by the left side of the skeleton. Dr. Pirling identifies the object as a firesteel, and suggests that it was carried hanging from a strap attached to the buckle. She suggests that the other end of the strap might have been attached to a pouch which held the flint. She draws an analogy with a modern tobacco pouch.

The identification of this object as a firesteel seems to me to be entirely convincing. It can be reinforced – if it needs reinforcing – by a number of additional points. There is an almost identical piece from Eprave which has been used so much that the central part of the straight edge has been quite worn away (fig. 2). This wear would make no sense at all if the object was part of a purse. Notice, too, that this straight edge, which I call the striking edge, is not decorated with inlay. There was no point in putting inlay in a position where it was likely to be worn away by use.

¹ Strictly speaking the 'strike-a-light' is the flint and the 'firesteel' is the iron, but current English users, particularly archaeologists, frequently confuse the two.

² A. Roes, *Bonner Jahrb.* 167, 1967, 285 ff.

³ R. Pirling, *Jahrb. RGZM* 7, 1960, 311 ff. Taf. 59.

Now, if this piece can be shown so convincingly to be a firesteel, what reason is there to suppose that other similar objects are not also firesteels? These similar objects include plain iron pieces, inlaid iron pieces, bronze pieces and jewelled gold pieces all with bird heads, and a similar series of objects with horse heads. All these objects have buckles and thus, according to current thinking, are identified as purse-mounts. Yet, is there any reason to separate them from the identification which fits the Krefeld-Gellep and Eprave pieces so well? Is there any reason to believe that they are not all really firesteels?

The question goes back to the days of Lindenschmit and Cochet, Roach Smith and Akerman. Roach Smith published a piece from Ozingell, Kent, identifying it as a purse-mount⁴, but Akerman disagreed⁵, saying that the piece was surely a firesteel, for no one would make a purse-mount of iron when he could use bronze. Cochet's finds from Envermeu brought the argument down firmly on the side of the purse-mount, for he was able to show that the jewelled piece which he found was closely related to the jewelled fittings found in Childeric's grave, and Childeric's grave must have had a purse in it to contain the numerous gold and silver coins⁶. By the time Lindenschmit published his 'Handbuch', there was no argument left; he described purse-mounts in detail in one section, and firesteels quite separately a few pages later⁷. Further examples of purse-mounts were published by Boulanger⁸; as to calling them firesteels, Boulanger wrote, 'c'est un hypothèse tellement risquée qu'elle ne souffre pas la discussion'⁹. Nevertheless it was Boulanger's illustrations which were to open the argument again. Drexel noticed that all the examples shown appeared to have on them or around them traces of the iron which would have been necessary to produce a spark, when struck against a flint¹⁰. It was an echo of Akerman's view. Drexel quoted examples from 'St. Omer' (find list no. 32) and Monceau le Neuf (find list nos. 33 and 41) as examples of jewelled pieces with iron attached, and he suggested that similar pieces illustrated by Lindenschmit had been drawn after cleaning when the tell-tale evidence of the iron rust had been removed. The best example of this is a bronze piece from Envermeu illustrated by Lindenschmit, Boulanger and subsequently by A. Roes. This illustration (fig. 3,1) is derived ultimately from the coloured lithograph which appeared in *Archaeologia* as an illustration for a paper which Cochet communicated to the Society of Antiquaries in London¹¹. The illustration shows a bronze 'purse-mount' with horse head terminals in which the back edge of the heads project up like ears from the straight edge of the object. As published by Cochet this object is realistically shown with the essential detail sketched in between the two 'ears' (fig. 3,2)¹²; the

⁴ C. Roach Smith, *Collectanea Antiqua* 3 (1853) 15 ff.; *Inventarium Sepulchrale* (1856) xlii.

⁵ J. Y. Akerman, *Archaeologia* 35, 1854, 267.

⁶ L'Abbé Cochet, *Archaeologia* 37, 1857, 102 ff.; id., *Sépultures gauloises, romaines, franques et normandes* (1857) 266 ff.; id., *Le tombeau de Childeric* (1859) 317 ff.

⁷ Lindenschmit, *Handbuch* 456 ff. and 462 ff.

⁸ Boulanger, *Mobilier funéraire* pl. 26; 38.

⁹ Boulanger, *Cimetière de Marchélepot* 82 ff.

¹⁰ R. Drexel, *Röm.-Germ. Korrb.* 6, 1913, 23.

¹¹ *Archaeologia* 37, 1857, 104 pl. 2,7.

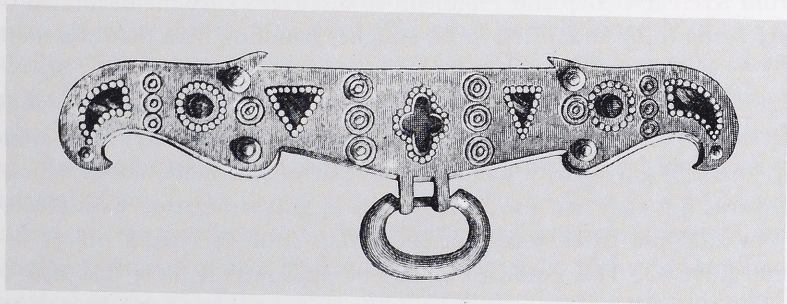
¹² L'Abbé Cochet, *Le tombeau de Childeric* (1859) 324.



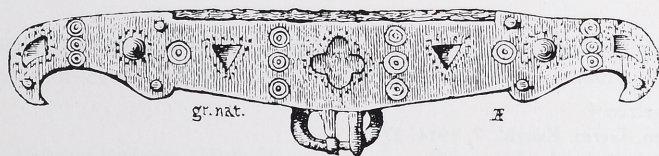
1 Inlaid iron firesteel from Krefeld-Gellep 43. – Scale 1 : 1 (Foto RGZM Mainz).



2 Inlaid iron firesteel from Eprave 245. – Scale 1 : 1.



3,1



3,2

3 Bronze 'pursemount' from Envermeu.

1 Boulanger's drawing based on the lithograph in *Archaeologia* 1857. – 2 Cochet's own drawing.
Scale 1 : 1.

different shading and the wavy edge given to this detail leave no doubt that there was originally a strip of iron set in along the edge of the object – and for what purpose, if not to make it usable as a firesteel!

As far as the jewelled gold pieces were concerned, Drexel pointed out that Lindenschmit's example came from his own excavation at Selzen and that when found it had been identified as a jewelled knife handle precisely because it was lying around amongst a mass of iron rust¹³. Could not part of this rust be due to the iron backing necessary to make the gold object usable as a firesteel? Drexel's argument that there is evidence of iron in the make-up of the cloisonné pieces, so making them usable as firesteels, remains valid despite the numerous finds which have been made since he wrote. Every piece for which there is any sort of record has some trace of iron or rust attached to it, or in its immediate neighbourhood, as the details in the find list make clear.

Even so Drexel's argument did not hold the field. He was opposed by Brenner who found it impossible to believe that delicate work such as cloisonné work would – or could – have been used to decorate an object like a firesteel which had to withstand some quite rough handling¹⁴. The same objection had been made by Boulanger¹⁵ and has often been repeated since then, but it takes no account of other objects decorated in the same way, nor of other firesteels being used in other parts of the world. In her 'Catalogue of the Bryant and May Collection of Firemaking Equipment' M. Christy writes, 'The firesteel was an implement in constant use, and intended therefore to be carried on the person. It was often highly ornamental, and sometimes even inlaid with gold and precious stones'¹⁶. She illustrates several exotically inlaid examples from Tibet, India and China. As far as the migration period is concerned it is sufficient to think of objects such as the inlaid handles of swords from Krefeld-Gellep and Flonheim to discover cloisonné decorated objects which were made to be submitted to far rougher handling than that of a mere firesteel.

In addition to these arguments, there is the evidence of the flints. Obviously to make a firesteel usable a flint, or other suitable stone, is necessary. Such stones are frequently found in graves with plain iron (buckleless) firesteels about which there is no argument; but they are also often found in graves together with pieces with buckles. For example there was a piece of flint near the inlaid object in Krefeld-Gellep, grave 43. This could of course be explained if there had also been a plain iron firesteel in the grave, but there was not. Of all the firesteels with buckles which I have been able to obtain details, thirty one are recorded as having flints with them, but not one – not a single one – has also a plain iron firesteel in the grave¹⁷.

These collected arguments seem to me to provide a convincing answer to the

¹³ Lindenschmit, Selzen 4.

¹⁴ E. Brenner, *Röm.-Germ. Korrb.* 7, 1914, 27 f.

¹⁵ Boulanger, *Cimetière de Marchélepot* 82.

¹⁶ M. Christy, *The Bryant and May Museum of Firemaking Appliances. Catalogue of the exhibits* (1926) 24.

¹⁷ The proportion of firesteels found with flints is comparatively small; but it must be remembered that many firesteels have no grave associations, and of those which do many were found in old excavations in which the presence of a flint may well have gone unnoticed.

question I asked. There is no reason to suppose that all these objects, those with buckles and those without, are not firesteels. Indeed, there seems every reason to state that they are firesteels.

There are a few occasions where the literature records evidence or contains statements which appear to contradict the arguments I have assembled. These contradictions can all be dismissed, as follows:

1. In his 'Mobilier funéraire', Boulanger published a grave showing a warrior with a firesteel and flint on one side and an 'aumonière de bourse' on the other¹⁸. The short descriptive text shows that this was a generalized – idealized grave, and not an actual grave. In fact, there is no record of an actual grave containing both types. This sort of error is perpetuated, not by the facts, but by the sort of general statements that are made by way of explanation, as for example occurs in the discussion of the piece from Arlon. 'Les fermoirs servaient à fermer une sorte d'aumonière contenant divers utensiles domestiques – pince à épiler, fer de briquet, silex, souvent accompagnés de monnaies'¹⁹. This sort of statement is not supported by the facts.

2. Lindenschmit published a piece from Oberflacht which he said was of bronze and which lacks the recess for the iron striking edge which is characteristic of the Envermeu piece²⁰. However, I think this is a case of mistaking the metal concerned, for Veeck describes the piece from this grave as of iron²¹. Very well preserved iron is normally unexpected and it can sometimes be mistaken for another metal. Such was the case when the beautifully preserved piece from Portchester was an item on the BBC television quiz 'Animal, Vegetable, Mineral'. The experts were divided on whether it was bronze or iron and a magnet was used to show which were right!

3. Several writers who describe their pieces as pursemounts then identify a secondary piece of iron as a firesteel. The most notable example of this is the Krefeld-Gellep 'Fürstengrab' 1492 which contains a gold and garnet horse head fitting which R. Pirling calls the 'Taschenbügel' and a smaller flat piece of iron which she calls the 'Feuerstahl'²². I would prefer to identify both pieces as part of the same object, the iron being the functional part of the firesteel, the cloisonné fittings the ornamental part.

The same sort of mistake occurs where the firesteel has no decoration, but is a plain iron variety provided with a buckle and curving ends. If this is identified as a pursemount, then the way is open for any miscellaneous piece of iron found in the vicinity to be called a firesteel. This happens in the case of Lavoye 122, where the piece of iron bears no resemblance to a firesteel and need not be identified as one²³.

The final test of my argument must, I feel certain, be a satisfactory explanation of the way these objects – let me now call them all firesteels – were used and carried.

¹⁸ Boulanger, *Mobilier funéraire* 118 pl. 36.

¹⁹ H. Roosens and J. Alenus-Lecerf, *Archaeologia Belgica* 88, 1965, 152.

²⁰ Lindenschmit, *Handbuch* 459 pl. 24,6.

²¹ W. Veeck, *Die Alamannen in Württemberg* (1931) 297.

²² R. Pirling, *Germania* 42, 1964, 202 f.

²³ R. Joffroy, *Le cimetière de Lavoye* (1974) 115.

This is where other arguments and suggestions have failed in the past, for those purses or pouches which have been proposed as hanging from these 'pursemounts' seem singularly unconvincing²⁴. Unfortunately no examples have been found buried in the sort of environmental conditions which allow leather and other organic materials to survive. Nevertheless we are not without sufficient details from graves and grave positions to speculate on the possible arrangements for carrying, and so for use.

Firstly, consider what a firesteel is used for. Firesteel and flint are used together to strike a spark onto some dry stuff, the tinder, which ignites and can be fanned into a fire. Thus a firesteel by itself is of no use; nor indeed are a firesteel and flint, for to create fire the third ingredient, the tinder must be present. It is quite common amongst the people of other ages and other places for the firesteel, flint and tinder to be contained together in a box or a pouch. The variety of these containers is almost limitless, as a glance at the illustrations in the Bryant and May catalogue will show. Two points emerge from a study of these illustrations (and of the objects themselves, now exhibited in the Science Museum, London). When the flint and tinder are kept in a pouch, the steel is frequently attached to the outside of the pouch; sometimes it even forms a part of the frame of the pouch. Also, it was important to keep the tinder dry, so the pouch could be of quite an elaborate kind with numerous folds of leather, etc. We are back to R. Pirling's analogy with the modern tobacco pouch.

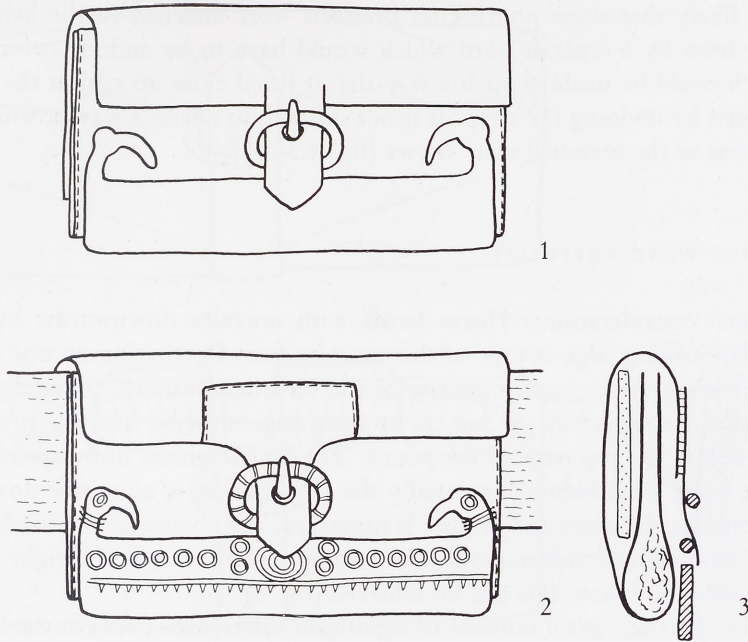
Another question to be taken into account in considering a detailed reconstruction of a firesteel with accompanying pouch for the flint and tinder is the difference between the two main types, the bird head and horse head varieties. For each there seems to be a right way up, and a wrong way. The bird head varieties will need to have the bird heads at the top; thus the buckle will be at the top and the striking edge at the bottom. In contrast, for horse heads to be seen the right way up, the buckle must be at the bottom and the striking edge at the top. This logical deduction is supported by those very few cases where excavators have bothered to record the exact position of the firesteels in the grave. The best example is the jewelled horse head firesteel from the Krefeld-Gellep 'Fürstengrab' 1492. R. Pirling's careful plan shows the horses' heads in the expected position, and the striking edge of the firesteel at the top²⁵. Chenet's plan of Lavoye 319 shows that the jewelled horse head firesteel in that grave is lying in the same position²⁶. For the bird head varieties, the evidence is very meagre. I can cite only Lethbridge's plan of a woman's grave from Holywell Row, Suffolk, with a very stylized bird head firesteel in the expected position with the heads at the top and the striking edge at the bottom²⁷. The implication of these two positions is, of course, that there must be two different reconstructions.

²⁴ A. Roes, *Bonner Jahrb.* 167, 1967, 285 ff. follows C. Boulanger (*Cimetière de Marchépot* 84 ff.) in illustrating some of these unconvincing reconstructions.

²⁵ R. Pirling, *Germania* 42, 1964, 190.

²⁶ G. Chenet, *Préhistoire* 4, 1935, 38.

²⁷ T. C. Lethbridge, *Recent Excavations in Anglo Saxon Cemeteries in Cambridgeshire and Suffolk* (1931) 5 ff.



4 Reconstruction of a tinder pouch with a bird head fire-steel.

1 Outline showing the relative positions of the pieces. – 2 The firesteel from Krefeld-Gellep 43 mounted on a pouch attached to a belt. – 3 Sectional view.

Bird head varieties

General considerations: Bird heads upright, buckle upwards. Striking edge at bottom; therefore this must be free for use. Decoration on one side only; therefore one side must be visible, and the other is probably obscured. No rivet holes through the iron; so fixing must be by a strap attached to the buckle, or by sewing to the bird heads.

Figure 4,1 shows the simplest sort of pouch-cum-steel arrangement appropriate to the bird head variety of firesteel. A small rectangular pouch with a flap closed by a strap which is fastened to the buckle in the centre of the firesteel. When the strap is undone the lid of the pouch can be opened and the flint and tinder taken out. But undoing the strap also releases the firesteel, and one can see at once that the lid could be opened merely by lifting up the firesteel and without bothering to undo the strap. What then is the point of the buckle? The buckle becomes necessary if the firesteel is itself fastened to the lower edge of the pouch. This cannot be by rivets, for there are none; but it could be by sewing, and the obvious attachment points are the curving necks of the bird heads. (Among comparatively recent examples collected in Nuristan, and now in the Pitt Rivers museum, Oxford, are several with firesteels with curling ends attached to the lower edge of their pouches in this manner.) Thus the firesteel would become an integral part of the lower edge of the pouch (fig. 4,2); and the pouch itself becomes a convenient means of holding the firesteel when striking the flint. The firesteel would have to be positioned in such a way that the striking edge was free of the bottom of the pouch.

It is likely that these pouch-cum-firesteels were attached to the belt. This could have been by a separate cord which would have to be undone before use, or the pouch could be made in such a way that it fitted close up against the belt and was released by undoing the strap. It is not difficult to devise a way in which this could be done as the sectional view shows (fig. 4,3).

Horse head varieties

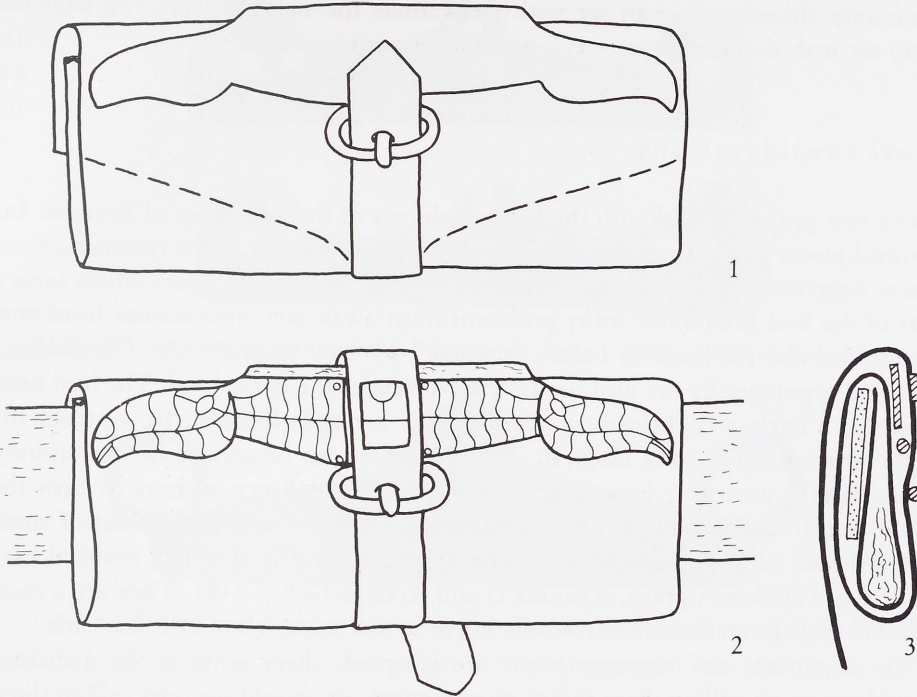
General considerations: Horse heads with muzzles downwards, buckles downwards. Striking edge at top, so this must be free. Decoration on one side only.

This variety is the exact opposite of the bird head variety. Since the horse heads must be the right way up and the striking edge must be free, the firesteel must be attached to the top edge of the pouch. The buckle points downwards, so the strap must come from below. Essentially the whole thing is an upside-down version of the bird head variety and all that is necessary, is a change in the stitching to ensure that the flint and tinder remain in a compartment that is the right way up. The drawings show how this can be achieved (fig. 5).

In practice there are a number of significant differences between the bird head and horse head varieties. The horse head varieties cannot hang from loose stitching in the way I have suggested the bird head varieties did. They would not have kept their position along the top edge of the pouch. Most horse head examples have a number of rivet holes through them, and rivetting must have been the normal method of fastening. For the elaborate *cloisonné* pieces whether made of gold or bronze, rivetting was essential for it allowed the necessary piece of iron to be fixed in position underneath the decoration yet jutting out far enough for it to be usable. It is possible that the iron and gold were not placed in contact, but that the iron was sandwiched between two pieces of leather or a piece of leather and a piece of wood with the *cloisonné* decoration rivetted on to the outside²⁸. If so this could explain why the gold work so often survives quite detached from any actual piece of iron.

Another peculiarity of this type arises from the position of the buckle which points downwards; hence the strap must come through from below. But this leaves an awkward loose end which will either hang over the front of the buckle in an unsightly manner, or must be tucked over the top of the pouch and down the back. If the loose strap is tucked down the back it will pass right across the middle of the firesteel so obscuring any decoration there may be at this point – a difficulty which explains at once why so many of the finest jewelled horse head firesteels are made in three pieces. This can best be understood by reference to the type I have called

²⁸ 'La peau ou l'étoffe composant la pochette était prise entre le fer et le bois' wrote Boulanger in describing the piece from Monceaux, Oise (find list no. 42). Traces of wood were noticed on the pieces from Arlon (find list no. 13) and Envermeu (find list no. 16). Leather seems to be indicated by areas of white, yellow or brown discolouration, sometimes very powdery, noticed at Arlon, Hailfingen (find list no. 36), Köln-Müngersdorf 53 and 98 (find list nos. 83 and 84) and Lavoye 155 (find list no. 88).



5 Reconstruction of a tinder pouch with a three-piece jewelled horse head firesteel.
 1 Outline showing the relative positions of the pieces. – 2 The firesteel from Krefeld-Gellep 1492 mounted on a pouch attached to a belt. – 3 Sectional view.

the 'Arlon' type with examples coming from Arlon, Krefeld 1492, Lavoye 319, Envermeu, Planig, etc. (fig. 9). In each case the cloisonné is in three pieces; there are two pieces shaped like the neck and head of a horse and a third small rectangular piece which fits in the middle. Each of the horse head pieces has three rivet holes, one at the muzzle and two at the base of the neck. But the central rectangular piece has no rivet holes. Also, it is noticeable, that the dimensions of the rectangular piece are smaller than those of the pieces on either side. The question which arises is, how was the rectangular piece fastened in position, and why doesn't its size match that of the flanking pieces? The explanation follows at once from a consideration of the strap. Rather than allow the strap to cover the centre of the piece of cloisonné work, the jewellery was divided into two pieces with a gap between; each piece was held in place separately with its own three rivets (fig. 5,2). The central rectangular panel was not fastened into place on the pouch, but was set into the strap, so that when done up in the correct way the small panel would appear to be linking the two horse heads together. No doubt, since it wasn't rivetted to the strap, the panel was sunk into a rectangular hollow cut into the surface of the leather. The slightly smaller dimensions of the panel can be explained by the need to provide space for a retaining border of leather on each side. While I feel certain of this explanation, I find it odd that there is often a domed garnet in the setting of the centre panel. It would seem hazardous enough to be

constantly threading a strap set with flat garnets through a buckle. To have the strap set with domed garnets seems to be asking for trouble.

Final considerations

These two proposals deal with the basic problems of the two types of firesteel. Individual pieces will have required their own particular variant of the reconstructions I have suggested. Some particular problems are dealt with in the notes which form a part of the find lists; a few other problems must await new information from new excavations and publications before they can be solved satisfactorily. Chronologically and typologically the bird head variety precedes the horse head. The bird head variety is a fairly straightforward adaptation of a simple firesteel. In contrast, the horse head variety is quite illogical; its arrangement can be seen to be due entirely to a desire to portray a horse rather than a bird, and hence to have to turn the whole pouch upside down. It is not surprising that the best and earliest of these pieces should be found in graves associated with horses, saddles and jewelled harness, e. g. Childeric's grave, Apahida II and Krefeld-Gellep 1492. They are a clear indication of the status attached to the horse by the upper classes of that time.

If my arguments and reconstructions are accepted, there remains the question, should we go on calling these things purse mounts, or should we start calling them firesteels. Strictly speaking both are true; but the dominant function, it seems clear to me, is that of the firesteel, and this surely is the one by which they should be known. Firesteels, jewelled firesteels, jewelled fittings from a tinder pouch – all these convey an idea of the function of the objects which the simple 'purse mount' does not do.

List of Finds of Firesteels with Buckles

BONN TYPE

A single example published by A. Roes. The piece is of bronze; it has three rivets along the lower edge where, at the back, there is a recess into which an iron striking plate could be fitted. As Roes points out, the style of the piece is similar to combs of the first half of the fifth century. One could also add that the bronzework fits in well with the style of the bronze belt and sword fittings of the period. It seems quite likely that firesteels of this sort might have been products of the weapons workshops; though their scarcity suggests that they were of limited success.

1 Provenance unknown (fig. 6). Now in Bonn museum.

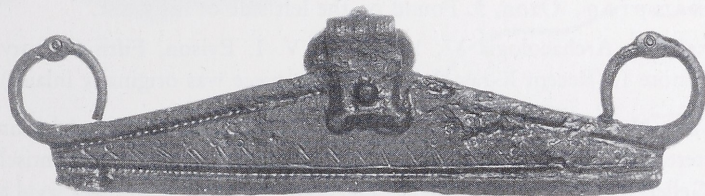
A. Roes, *Bonner Jahrb.* 167, 1967, 296.

PORTCHESTER TYPE

An all-iron version of the previous type in which the bird heads are elongated and exaggerated into prominent necks and long beaks interrupted only by a circle with an eye.



6 Bronze firesteel in the Rheinisches Landesmuseum Bonn. – Scale 1 : 1 (Foto RLM Bonn).



7 Iron firesteel from Portchester. – Scale 1 : 1 (Foto Institute of Archaeology Oxford).

2 Portchester, Hants (fig. 7). Found in a well. Flat on the back; stamped and engraved on the front. The edges of the grooves are notched as though perhaps once inlaid with silver or brass.

B. W. Cunliffe, *Antiqu. Journal* 52, 1972, 74 pl. 18.

3 High Down, Sussex. An unassociated find from the cemetery. X-rays reveal bands of inlay matching the grooving on the previous piece.

V. I. Evison, *Antiqu. Journal* 35, 1955, 39 pl. 6.

KREFELD TYPE

This is the basic inlaid variety; iron, rectangular shape with prominent bird heads rising from the corners. Inlay and in one case repoussé bronze plates decorate the buckle, bird heads and upper part of the steel, but leave the lower striking edge plain. The dating of this group is basically that of Krefeld-Gellep 43. High Down 14 contained a glass bowl of similar date.

4 Krefeld-Gellep 43 (fig. 1). A flint was found nearby. The well-known soldier's grave of the mid-fifth century.

R. Pirling, *Das römische-fränkische Gräberfeld von Krefeld-Gellep* (1966) 19 f.; id., *Jahrb. RGZM* 7, 1960, pl. 59

5 Carnuntum. No associations. Very similar to Krefeld piece.

W. Holmqvist, *Tauschierte Metallarbeiten des Nordens* (1951) 49 fig. 21.

6 High Down, Sussex, 14. Decorated with repoussé bronze plates. Found in a grave

near the right shoulder with a bronze awl, iron knife and a flint. The grave also contained a spearhead and a glass bowl.

C. H. Read, *Archaeologia* 54, 1895, 374 f. pl. 273; V. I. Evison, *Antiqu. Journal* 35, 1955 pl. 14.

7 *Eprave* 245 (fig. 2). Found in a man's grave, near the waist, with a small bone comb and four flints; there was an axe in the grave.

Marien, *Vestiges* 52; A. Roes, *Bonner Jahrb.* 167, 1967, 289 Abb. 5.

8 *Alfriston*, Sussex, grave B (?). Position not stated; grave contents included flints.

Sussex Archaeological Collections 56, 1914, 49; V. I. Evison, *Fifth Century Invasions* (1965) 91 pl. 6e.

9 *Brightampton*, Oxon, 5. Found on the left side of the waist.

J. Y. Akerman, *Archaeologia* 37, 1858, 393; V. I. Evison, *Fifth Century Invasions* (1965) 91, note 1. (Recent X-ray shows that this piece was originally inlaid.)

10 *Liebenau*. H. W. Böhme, *Germanische Grabfunde des 4. bis 5. Jahrhunderts zwischen unterer Elbe und Loire* (1974) 116 speaks of an example 'fast identisch' with the Krefeld-Gellep piece.

CLOISONNÉ HORSE HEADS; TOURNAI AND APAHIDA

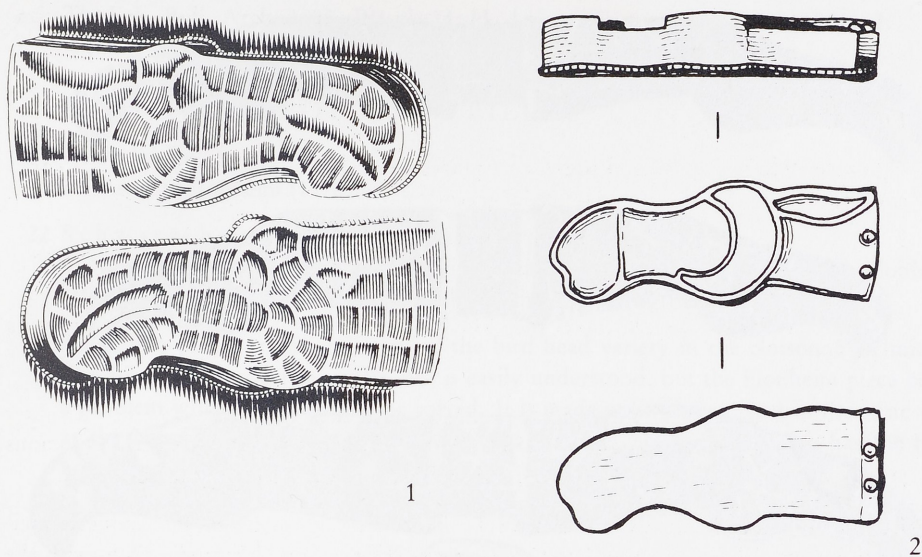
The most recently found of all the jewelled pieces, that from *Apahida* 2, differs from the surviving examples. The published illustrations show that it is hollow, and that it is open at one end, the neck of the horse (fig. 8,2). There are rivets across this opening, but there are no rivets projecting through to the back of the object. It is thus clear that the jewelled gold horse head was supported by something being fixed into the hollow of its neck. Whatever this was it has now disappeared. It could have been some sort of organic material, such as wood, or possible leather, or it could have been iron. If the missing material was iron, then the firesteel would have had the appearance of an iron bar with both ends capped with gold.

It seems quite likely that the horse heads from *Childeric's* grave were attached in the same way. As originally published by *Chiflet* (fig. 8,1), they can be seen to have been of considerable depth, and to have been surrounded by a beaded lower border which indicates that they were designed to be set back flat against something like leather, and not sunk into it. *Chiflet* does not show the neck end of either object nor does he show the backs. Several objects for which he does show a back view have rivets or loops showing how they were fastened; by implication it may reasonably be suggested that the horse heads were flat on the back, and on the analogy of the *Apahida* pieces, that they were fastened over the end of the iron of the firesteel.

These two pieces are likely to be among the earliest of the cloisonné pieces and also among the earliest of the horse heads. With only the jewelled terminals remaining it is not possible to offer a convincing reconstruction of the actual arrangement in association with the pouch.

11 *Tournai* (fig. 8,1). *Childeric's* grave. Two cloisonné horse heads, now lost; known only from the illustrations in:

J. J. *Chiflet*, *Anastasis Childerici* (1655) 37 f.; 226. See also *l'Abbé Cochet*, *Le Tombeau de Childeric* (1859) 317 ff.



8 1 Jewelled horse heads from Childeric's grave (after Chiflet). Scale probably 1 : 1. – 2 One of a pair of jewelled horse heads from Apahida 2 (after Horedt and Protase). – Scale 1 : 1.

- 12 *Apahida 2* (fig. 8,2). A pair of jewelled horse heads, part of the contents of a richly furnished grave with jewelled weapons, personal ornaments and horse gear. This grave contained a kidney-shaped purse lid of the same sort as the purse lids from Sutton Hoo and Köln-Müngersdorf 10. It is far more satisfactory to explain the jewelled horse heads as part of a tinder pouch-cum-firesteel than as the fittings of a second purse as the report maintains.

K. Horedt and D. Protase, *Germania* 50, 1972, 194.

ARLON TYPE

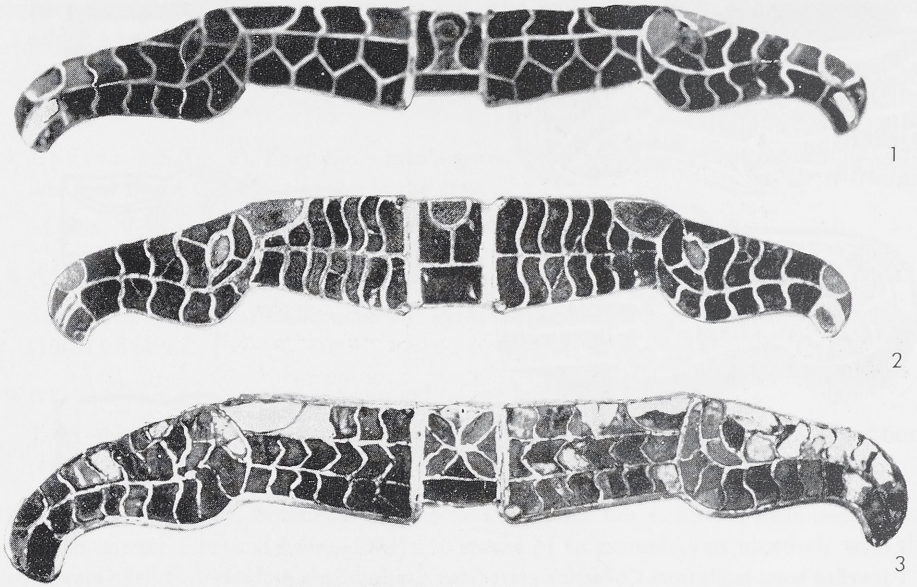
Jewelled horse heads made in three pieces. This is the best known group of jewelled pieces. They are datable within the range of Böhner's Stufe II.

- 13 *Arlon 10* (fig. 9,3). Gold with garnets and blue and green glass; six rivets, three in each horse head; traces of whitish powder filling behind. There is no mention of iron, but the object was found 'reposit sur un amas de fer et de bois en décomposition'.

H. Roosens and J. Alenus-Lecerf, *Archaeologia Belgica* 88, 1965, 52.

- 14 *Krefeld-Gellep 1492* (fig. 9,2). Found on the left side of the waist together with two gold handled knives, a flint, an awl and a fragment of iron identified as a firesteel. Three gold fittings set with garnets and coloured glass; two horse heads with three rivets in each head, one centre piece without rivets and set with a domed garnet; separate gold buckle. I have argued above (p. 455) that the jewelled fittings are as much a part of the firesteel as is the piece of iron; the iron is the functional part, the fittings are the decorative part.

R. Pirling, *Germania* 42, 1964, 202 f.



9 Three-piece jewelled horse heads.
1 Planig. – 2 Krefeld-Gellep 1492. – 3 Arlon 10. – Scale 1 : 1.

- 15 Lavoye 319. Gold, garnets and coloured glass described as 'sertis dans une boîte, ou armature, de fer'; buckle of gilt bronze. Found lying across the body just below the belt buckle; a pair of tweezers and a flint nearby. The photograph shows that the horse heads are fastened with rivets but, despite Chenet's assertion, not the centre piece. G. Chenet, *Préhistoire* 1935, 41 ff.; R. Joffroy, *Le cimetière de Lavoye* (1974) 40.
- 16 Envermeu. Gold with garnets and coloured glass. The coloured illustration in *Archaeologia* indicates that the object was found embedded in a mass of iron. L'Abbé Cochet, *Sépultures gauloises, romaines, franques et normandes* (1857) 184; id., *Archaeologia* 37, 1857, 104 ff.
- 17 Planig (fig. 9,1). Gold with garnets and coloured glass. Photographs of the object before cleaning show that it was surrounded by extensive traces of iron rust. Nearby was found a flint: 'Dabei lag ein kleiner Feuerstein, dessen Verwendung zum Feuerschlagen unsicher ist, da der Feuerstahl fehlt!' P. T. Kessler, *Mainzer Zeitschr.* 35, 1940, 7.
- 18 Templeux la Fosse. Gold, garnets and coloured glass. The illustration indicates that this piece was surrounded by iron. Th. Eck, *Bull. Arch.* 1891, 124 ff.
- 19 Nettersheim 3. Fragmentary gold and garnet threepiece cellwork, mounted on what looks like the remains of a piece of iron. H. W. Böhme in: *Führer zu vor- und frühgeschichtlichen Denkmälern. Nordöstliches Eifelvorland* 1 (1974) 95 f.
- 20 Flamicourt. The illustration indicates an iron base or background. H. Ament suggests that the provenance of this piece should perhaps be Barleux.

Th. Eck, *Bull. Arch.* 1895, 393 pl. 14; H. Ament, *Germania* 45, 1967, 190 n. 2.

BIRD HEAD CLOISONNÉ PIECES

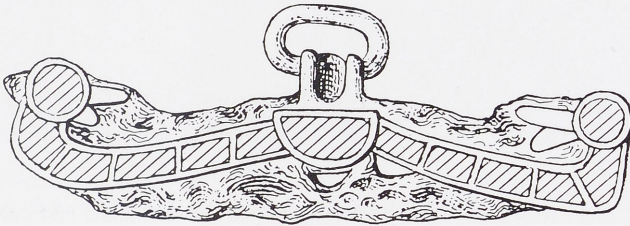
21 Flonheim.

H. Ament, Flonheim (1970) 68 ff.

22 Schwarzhendorf 58 (fig. 10).

G. Behrens, *RGZM Cat. 13. Merowingerzeit* (1947) 21 and 34; H. Ament, Flonheim (1970) Abb. 6. (Ament's illustration shows the iron background to this piece.)

These two pieces are an imitation of the bird head variety in the cloisonné technique. The Schwarzhendorf piece (fig. 10) is easily understood, but the Flonheim piece poses a problem which cannot easily be solved. It is made up in three pieces in the same way as the horse head varieties, but in this case it is the centre piece which has the rivet holes, and the end pieces which are without them.



10 Jewelled bird heads mounted on an iron firesteel from Schwarzhendorf 58 (after Ament).
Scale 1 : 1.

MISCELLANEOUS CLOISONNÉ PIECES

23 Basel-Kleinhüningen 212. This is a small piece; gold and garnet bird heads where one would expect horse heads – a truly composite piece. The striking edge was presumably at the top. A three-piece arrangement; based on iron. No sign of rivets; no mention of flint. The outside of the pouch was decorated with jewelled 'Zierstücken'.

R. Laur-Belart, *Ur-Schweiz* 10, 1946, 66 f.

24 Selzen. Three pieces with rivets in the end pieces only. Curving ends imitating bird (?) or horse (?) heads. Bronze (?) set with garnets. When excavated it was so corroded onto a mass of iron that it was mistaken for a jewelled knife handle.

Lindenschmit, *Selzen* 4; *id.*, *Handbuch* 457 pl. 24, 4.

25 Breny (fig. 11). Ambiguous curving ends like the Selzen piece. Gold (?) or gilt bronze (?); made in one piece. No mention of iron backing but there appear to be traces of rust on the object in the illustration in A. Roes, *Bonner Jahrb.* 167, 1967, Abb. 3.

Lindenschmit, *Handbuch* fig. 450; F. Moreau, *Album Caranda* (1881) pl. 8,4.

26 Köln-Müngersdorf 70. A damaged piece. Typical three-piece arrangement; iron base.

F. Fremersdorf, *Das fränkische Gräberfeld Köln-Müngersdorf* (1955) 143 Taf. 92,3; 131,6.

- 27 *Herpes*. A damaged piece; iron set with gold and garnets with a silver or bronze buckle.
P. Delamain, *Le cimetière d'Herpes à Angoulême* (1892) pl. 5,17; J. Werner, *Kölner Jahrb. Vor- u. Frühgesch.* 3, 1958, 55 Abb. 1.
- 28 *Eick* 164. Fragments of iron set with bronze cells and glass inlays.
H. Hinz, *Eick* (1974) 120 Taf. 24,16,17.
- 29 *Selzen*. A fragment with bronze cellwork set with red and green glass; no mention of iron.
Lindenschmit, *Handbuch* 457 Taf. 24,5.

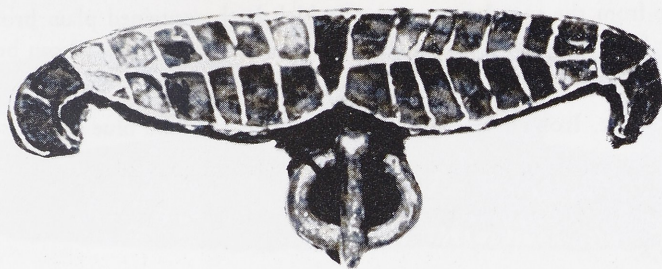
CHALANDRY TYPE

Jewelled horse heads in derivative style.

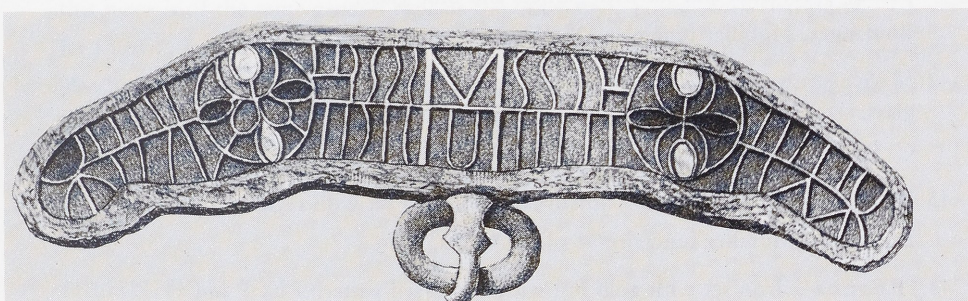
- 30 *Chalandry* (fig. 12). The materials are not stated but they look like glass set in bronze cells, all clearly surrounded by iron.
Pilloy, *Sép. dans l'Aisne III* 153 pl. 7.
- 31 *Gondorf*, Kr. Mayen. A. Roes, *Bonner Jahrb.* 167, 1967, 288 refers to a piece in the Bonn museum, inlaid with coloured glass and described as almost identical to the piece from *Chalandry*.
- 32 'St. Omer'. An iron basis with bronze cellwork set with glass and enamel?
Boulangier, *Mobilier funéraire* 81 pl. 26,14.
- 33 *Monceau-le-Neuf*. An iron basis with bronze cellwork set with garnets and mother of pearl.
Pilloy, *Sép. dans l'Aisne III* 152 ff. pl. 7.
- 34 'Lothringen'. A fragmentary piece sketched from a photograph; presumably garnets or glass in bronze cells.
P. T. Kessler, *Mainzer Zeitschr.* 35, 1940, 11 Abb. 12.
- 35 *Lyminge*, Kent 27. Bronze cellwork set with coloured glass; iron rust and an iron buckle.
A. Warhurst, *Archaeologia Cantiana* 69, 1955, 20.
- 36 *Hailfingen* 411. Iron set with green glass and clear glass, presumably in bronze cellwork.
H. Stoll, *Die Alamannengräber von Hailfingen in Württemberg* (1939) 66 pl. 9.
- 37 *Ulm*. Iron set with coloured glass.
W. Veeck, *Die Alamannen in Württemberg* (1931) 343 Taf. 46,B4.

MARCHÉLEPOT TYPE

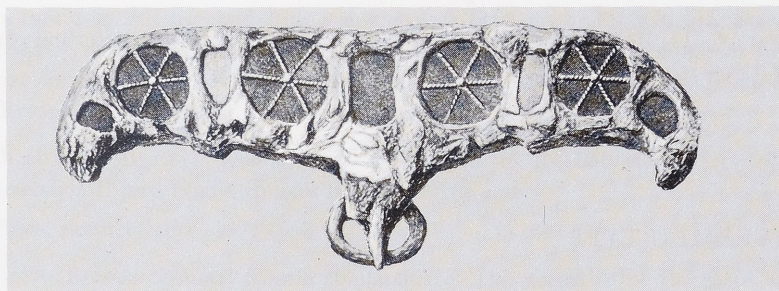
Horse heads covered with silver or gold foil, and sometimes set with stones or glass. This group is clearly localized in northern France. No doubt there exist many more examples than I have been able to record from the literature. The best dating associa-



11 Jewelled fitting from Breny with ambiguous curving ends, representing bird or horse heads. Scale 1 : 1.



12 Jewelled horse heads in derivative style on a firesteel from Chalandry (after Pilloy).



13 Iron firesteel covered with gold foil set with coloured glass from Monceau-le-Neuf (after Boulanger).

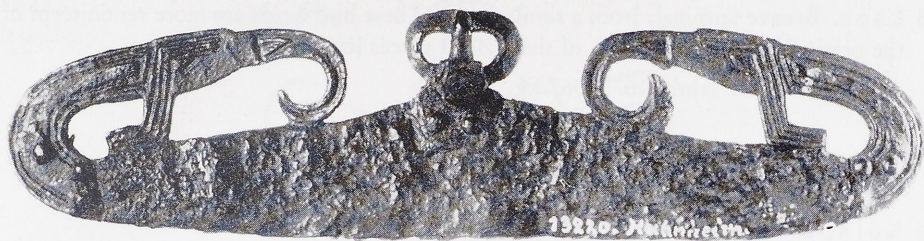
tions come from the two Lavoye graves which both contained plain bronze buckles. Both come from the earlier, north eastern part of the cemetery and can be placed well before the end of the sixth century.

- 38 Marchépot. Iron covered with gold (?) foil; garnet and blue glass insets.
Boulanger, Cimetière de Marchépot pl. 5,7.
- 39 Marchépot. Iron covered with gold foil; small garnet insets.
Ibid., pl. 5,8.
- 40 Eprave, Rouge Croix. Iron covered with gold foil with an impressed pattern and three red glass insets.
Marien, Vestiges 56 fig. 37.
- 41 Monceau-le-Neuf, Aisne (fig. 13). Iron covered with gold foil patterned with repoussé decoration and set with garnets and blue glass.
Boulanger, Mobilier funéraire 135 pl. 38.
- 42 Monceaux, Oise. Iron covered with gold foil set with filigree (?) and some coloured glass.
C. Boulanger, Bull. Arch. 1908, 336 pl. 30,11.
- 43 Maroeuil. Iron covered with silver (?) foil and set with rectangular pieces of glass.
Boulanger, Mobilier funéraire 81 pl. 26,14 bis.
- 44 'France'. Iron set with gold foil with impressed pattern.
British Museum Inv. 1923, 10-12,1.
- 45 Lavoye 248. Iron covered with gilt bronze sheeting, set with seven slabs of garnet. Found with a flint.
R. Joffroy, Le cimetière de Lavoye (1974) 126.
- 46 Lavoye 317. Iron covered with gilt bronze sheeting, set with garnets and glass.
Ibid., 130.

ENVERMEU TYPE

One piece bronze horse heads provided with a special iron striking edge.

- 47 Envermeu (fig. 3). Bronze with a recess for an iron striking edge; six rivet holes; garnet settings and engraved circles.
L'Abbé Cochet, Le Tombeau de Childeric (1857) 323 f.; id., Archaeologia 37, 1857, 102 ff.; Lindenschmit, Handbuch 456 pl. 24,3; Boulanger, Cimetière de Marchépot 85.
- 48 Herpes. Made of two bronze plates, a thick one set with jewels in the front, rivetted to a thin bronze plate behind. There is a recess cut to take the inset iron striking edge.
Boulanger, Cimetière de Marchépot 85; R. A. Smith, Brit. Mus. Guide to Anglo Saxon Antiquities (1923) 147.



14 Iron firesteel with rivetted bronze bird heads from Hahnheim.

49 Lavoye 194. Bronze set with garnets and glass; rivetted together. Although not set into a recess, the iron striking edge is clearly visible in the drawings, and suggests that this piece is of the same general type as the other two. Found with two flints.

R. Joffroy, *Le cimetière de Lavoye* (1974) 121; G. Chenet, *Préhistoire* 1935, 43 fig. 5. The Lavoye grave has a belt buckle, francisca and bell beaker datable to the first half of the sixth century.

HAHNHEIM TYPE

Iron firesteels with bronze bird heads attached with rivets. There is no dating evidence for any of these pieces though the style II ornament clearly places them in the second half of the sixth century. All show signs of having been joined to the iron striking plate with rivets, and for this reason they may be compared with the piece in the Bonn museum (no. 1 in this list) and with a single piece from grave 42 at Helgö, Sweden (W. Holmqvist et al., *Helgö 3* [1972] 163). Later examples of the joining of decorative bronze fittings to the iron striking plate exist in quantity at Birka, and in the pages of the Bryant and May catalogue.

50 Hahnheim (fig. 14). This survives as a cast in the RGZM Mainz. Iron plate with bronze style II bird head terminals rivetted to the ends.

A. Roes, *Bonner Jahrb.* 167, 1967 fig. 7.

51 Selzen. Bronze terminal from a similar piece. This seems to be the piece which A. Roes (*Bonner Jahrb.* 167, 1967 fig. 7) attributes to Mainz.

Lindenschmit, *Selzen* 4.

52 Worms. Bronze terminals from a similar piece.

A. Roes, *Bonner Jahrb.* 167, 1967 fig. 7.

53 Kobern bei Gondorf an der Mosel. Fragmentary bronze terminals from a similar piece.

Bonner Jahrb. 1889, 21 pl. 3, 23.

54 Sutton Courtenay, Berks. Fragment of a bronze terminal from a similar piece.

E. T. Leeds, *Archaeologia* 73, 1923 pl. 27.

- 55 Laon. Bronze terminals from a similar piece. These bird heads are more reminiscent of the original Krefeld piece than of the style II pieces listed above.

A. Roes, *Bonner Jahrb.* 167, 1967 fig. 7.

MISCELLANEOUS INLAID (TAUSCHIERT) PIECES

- 56 Köln, Röm.-Germ. Museum (Slg. Diergardt).

W. Holmqvist, *Tauschierte Metallarbeiten des Nordens* (1951) 49 fig. 21,2.

- 57 Leiden, museum.

V. I. Evison, *Antiqu. Journal* 35, 1955, 22 pl. 7 A.

These two are both curving iron pieces with inlaid pattern though it is not possible to say whether they are attempting to copy bird or horse head designs. Until better preserved and recorded examples are found there is little to be said of this type.

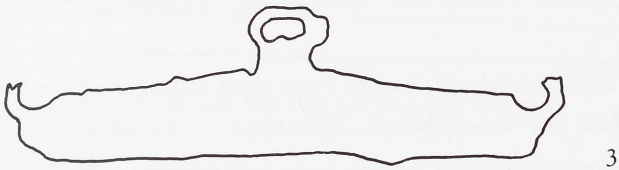
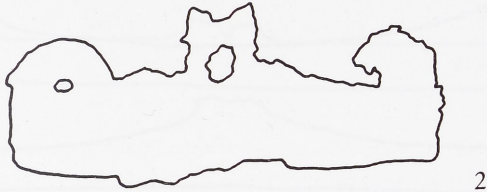
PLAIN IRON VARIETIES

These include both bird head and horse head types though the latter are comparatively few. Unfortunately the details and drawings to be gleaned from publications are too varied to make an attempt at a formal classification at all worthwhile. I have been content to draw out a number of the best examples, and to use these illustrations as a guide in describing the other pieces.

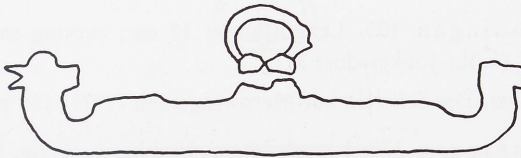
The illustrations fall into a number of groups. There are pieces with loops at the ends (fig. 15); the loops are clearly an imitation of the necks and beaks of birds as on the Krefeld-Gellep and Portchester types. These pieces are normally quite short, and either rectangular or triangular in outline. Representative examples come from Basel-Gotterbarmweg 32, Holywell Row 11 and Lyminge 22. There is an odd piece from Lens (fig. 16) which appears to have some sort of animal head indicated by two ears (?); this piece may be compared with the cloisonné bird head from Schwarzrheindorf (no. 22). There are a number of medium sized pieces with bird heads with long beaks which reach in towards the buckle (fig. 17). The style of these pieces echoes that of the bronze terminals of the example from Laon (no. 55). Finally there are bird head pieces which are very long and thin (fig. 18). The best of these is undoubtedly the piece from Oberflacht 7 with ring and dot ornament and a clearly defined groove along the striking edge. These long thin pieces have their ultimate debasement in the very stylized pieces which Cochet records from Envermeu. All these types, having either bird head loops or plain loops, could have been attached to the lower edge of a tinder pouch in the way I have suggested above.

On the other hand the plain iron horse head pieces present more of a problem, for it is not obvious how they were attached to the tinder pouch. The only piece which I have been able to examine (no. 77 in the British Museum) gives no clues, and it must remain for others, with access to better preserved examples, to propose a solution. Despite this difficulty it remains probable, I think, that the horse heads will have been seen the right way up, i. e. with muzzles downwards and with the striking edge upwards, and therefore that they must have been attached to the top edge of the tinder pouch in some way similar to my reconstruction of the cloisonné pieces.

The best plain iron horse head is that from Clérey (fig. 19,1; no. 69). Other pieces, less



15 Plain iron firesteels with loop ends.
1 Basel, Gotterbarmweg 32. - 2 Holywell Row 11. - 3 Lyminge 22.



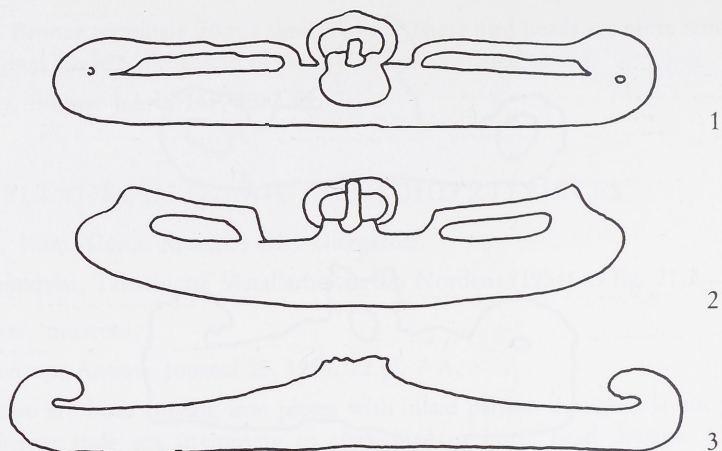
16 Plain iron firesteel with animal head terminals from Lens, Switzerland.

well preserved, but clearly horse heads come from 'France' (no. 77) and Schretzheim (nos. 113 and 114). There are then several pieces which might be horse heads or which might be broken bird heads. The piece from Köln-Junkersdorf 31 illustrates this problem (fig. 19,2). Are the terminals complete, and therefore horseheads, or are they broken and therefore probably bird heads? Without careful examination of the pieces it is not possible to say, and I have noted them here as having 'curving ends'.

The list which follows gives all the plain iron examples in alphabetical order. Flints are mentioned where they exist. I have also made a particular note when an example is recorded as coming from a woman's grave.

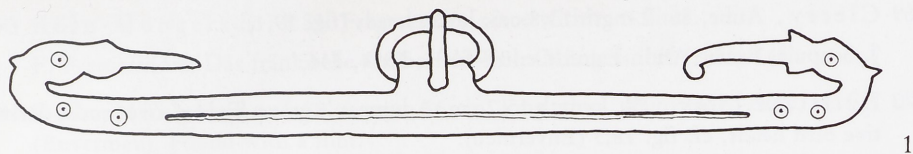
58 Alfriston, Sussex, grave A. Length 10 cm; loop ends, cf. fig. 15,2 (Holywell Row 11). A woman's grave?

V. I. Evison, *Fifth Century Invasions* (1965) fig. 17.

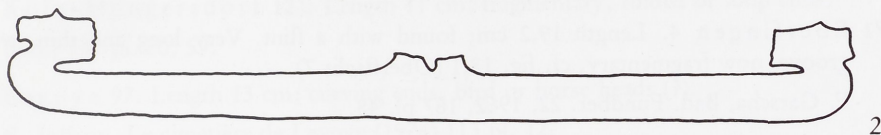


17 Plain iron firesteels with imitation bird head terminals.
1 Lavoye 289. - 2 Lavoye 322. - 3 Lavoye 243.

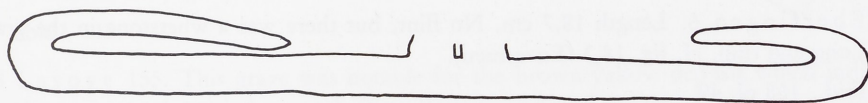
- 59 Basel, Gotterbarmweg 17. Length 9 cm; short rectangular piece without terminals. E. Vogt, *Anz. Schweiz. Altkde* 32, 1930, 154.
- 60 Basel, Gotterbarmweg 19. Length 8 cm; broken 'loop' ends. Found with a flint. *Ibid.*, 155.
- 61 Basel, Gotterbarmweg 32. Length 8,4 cm; triangular with loop ends (fig. 15,1). *Ibid.*, 160 pl. 11.
- 62 Basel-Kleinhüningen 105. Length about 12 cm; curving ends, possibly horse heads, cf. fig. 19,2 (Köln-Junkersdorf 31).
R. Moosbrugger-Leu, *Die Schweiz zur Merowingerzeit* (1971) 169 pl. 143.
- 63 Basel-Kleinhüningen 175. Length 14 cm; bird head, cf. fig. 17,1 (Lavoye 289). *Ibid.*, 169 pl. 43.
- 64 Bodman (Stockach) 4. Length 9,2 cm; short, with loop ends, cf. fig. 15,2.3.
F. Garscha, *Die Alamannen in Südbaden* (1970) 18, Typentafel H.
- 65 Bodman 18. Length 11,6 cm; curving horse heads.
Ibid., 18 pl. 81,7, Typentafel H.
- 66 Bülach 246. Length 12,2 cm. Sharply profiled heads which can only be bird heads looking downwards. This is thus another piece similar to the jewelled piece from Basel-Kleinhüningen 212 in which bird heads are set in the horse head position. Is it mere coincidence that both are from Switzerland?
J. Werner, *Das alamannische Gräberfeld von Bülach* (1953) 18 pl. 9,22.
- 67 Castel Trosino 109. Length 7,5 cm; curving ends.
R. Mengarelli, *Monumenti Antichi* 12, 1902, 274 f.
- 68 Chessel Down, Isle of Wight. In this grave were found four pieces of bronze edge binding, two straight pieces and two curved, as at Rügenach 343. They seem to have



1

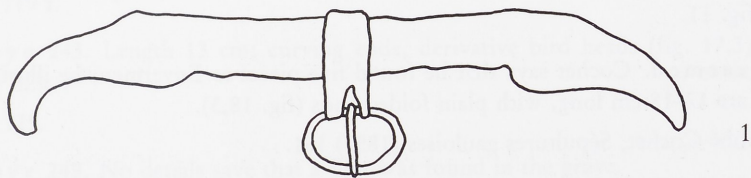


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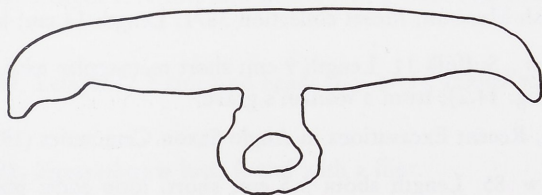


18 Plain iron firesteels with bird head and derivative terminals.
1 Oberflacht 7. - 2 Lavoye 178. - 3 Envermeu.

3



1



2

19 Plain iron firesteels with horse head terminals.
1 Clerey 86. - 2 Köln-Junkersdorf 31.

been found near the firesteel, and Hillier reconstructs them as the edging of the purse. This reconstruction has been much quoted, most recently by A. Roes. The excavations of the day do not suggest that too much reliance be placed on the lay-out, and consequently on the reconstruction. However as edge binding these pieces could have been fitted onto a tinder pouch as easily as on to a purse, and their finding does not in any way invalidate my argument.

G. Hillier, *The History and Antiquities of the Isle of Wight* (1855) 33.

- 69 Clérey, Aube, 86. Length 13,8 cm; horse heads (fig. 19,1).
J. Scapula, *Revue Arch. Est et Centre-Est* 5, 1954, 144.
- 70 Driffield, Yorks., 24. Length 15,2 cm. A woman's grave. Folded-over ends, derivative bird heads, cf. fig. 18,3 (Envermeu).
J. R. Mortimer, *Forty Years Researches in Burial Mounds in East Yorkshire* (1905) 282 fig. 804.
- 71 Eberfingen 4. Length 19,2 cm; found with a flint. Very long and thin, with a groove, now fragmentary, cf. fig. 18,1 (Oberflacht 7).
F. Garscha, *Bad. Fundber.* 22, 1962, 167 pl. 48.
- 72 Eberfingen 5. Length 18 cm; found with a flint. Long and thin, cf. fig. 18,2 (Lavoye 178).
Ibid., 168 pl. 49.
- 73 Eberfingen 6. Length 18,7 cm. No flint, but there was a whetstone in the grave. Long and thin, cf. fig. 18,3 (Envermeu).
Ibid., 168 pl. 49.
- 74 Elstertrebritz 4. Length 8 cm; short, with loops, cf. fig. 15,1 (Basel, Gotterbarmweg 32).
G. Mildenerger, *Die germanischen Funde der Völkerwanderungszeit in Sachsen* (1959) 24 fig. 11.
- 75 Envermeu. Cochet says that he found five pieces at Envermeu; he illustrates three. All are 17–18 cm long, with plain folded ends (fig. 18,3).
L'Abbé Cochet, *Sépultures gauloises* (1857) 161.
- 76 Eprave, Rouge Croix. Realistic bird heads, cf. fig. 18,1 (Oberflacht 7).
A. Bequet, *Ann. Soc. Arch. Namur* 19 (1891) 453.
- 77 'France'. British Museum, Morel collection 3871. Length 14 cm; horse head ends.
- 78 Holywell Row, Suffolk 11. Length 9 cm; short rectangular with loops found with buckle upwards (fig. 14,2); from a woman's grave.
T. C. Lethbridge, *Recent Excavations in Anglo Saxon Cemeteries* (1931) 5 fig. 3.
- 79 Holywell Row 85. Length about 5,5 cm; short, loop ends; possibly a woman's grave.
Ibid., 37.
- 80 Kiszombor 148. Length 11 cm; ends broken. Found with flints.
D. Csallany, *Archäologische Denkmäler der Gepiden* (1961) 180.
- 81 Kiszombor 335. Length 9 cm; one end seems to have a loop.
Ibid., 190 pl. 144.
- 82 Köln-Junkersdorf 31. Length 11 cm; found with a flint. This seems to be an iron horse head type; the sketch of its position in the grave shows that it lay with the heads pointing downwards (fig. 19,2).
P. La Baume, *Das fränkische Gräberfeld von Junkersdorf bei Köln* (1967).

- 83 Köln-Müngersdorf 53. Fragmentary piece with two flints.
F. Fremersdorf, *Das fränkische Gräberfeld Köln-Müngersdorf* (1955) 141.
- 84 Köln-Müngersdorf 98. Length 16 cm; long, thin, plain folded ends, cf. fig. 18,3 (Envermeu). Found with a flint.
Ibid., 148.
- 85 Köln-Müngersdorf 121. Length 11 cm; fragmentary, folded or loop ends.
Ibid., 151 pl. 20; 59.
- 86 Lavoye 97. Length 13 cm; curving ends, bird or horse heads (?).
R. Joffroy, *Le cimetière de Lavoye* (1974) 113 pl. 12.
- 87 Lavoye 122. Length 9 cm; found with a flint. In addition to the fragmentary firesteel this grave contained a piece of iron which Joffroy identifies as a 'briquet'; but see my comments on page 455 above.
Ibid., 115.
- 88 Lavoye 155. This grave was notable for the brown/yellow deposit which indicated the position of the tinder pouch. Two flints were found.
Ibid., 117.
- 89 Lavoye 178. Length 16,6 cm; long and thin, bird head ends (fig. 18,2).
Ibid., 119 f.
- 90 Lavoye 243. Length 13 cm; curving ends, derivative bird heads (fig. 17,3). Found with a flint.
Ibid., 125.
- 91 Lavoye 249. No details save that a flint was found in the grave.
Ibid., 126.
- 92 Lavoye 287. Length 15,4 cm; bird heads, cf. fig. 17,1 (Lavoye 289).
Ibid., 128.
- 93 Lavoye 289. Length 12,2 cm; bird heads (fig. 17,1). Found with four flints.
Ibid., 128.
- 94 Lavoye 298. Firesteel now lost, found with a flint.
Ibid., 129.
- 95 Lavoye 303. Fragmentary firesteel, length 16 cm; found with a flint.
Ibid., 129.
- 96 Lavoye 309. Length 10 cm; fragmentary.
Ibid., 130.
- 97 Lavoye 322. Length 10,6 cm; bird heads ends (fig. 17,2).
G. Chenet, *Préhistoire* 4, 1935, 43.
- 98 Lens, Switzerland (fig. 16). Length 10,4 cm; bird (?) head ends comparable to fig. 10 (Schwarzrheindorf).
Jahrb. Schweiz. Ges. Urgesch. 47, 1958/1959, 205.

- 99 Ly m i n g e 22. Length 11,2 cm; broken loop ends (fig. 15,3).
A. Warhust, *Archaeologia Cantiana* 69, 1955, 16.
- 100 Ly m i n g e 30. Length 8,4 cm; fragmentary loop ends. Found with a flint.
Ibid., 22.
- 101 M o n c e a u - l e - N e u f. Length 11,5 cm; an iron horse head type with the flint rusted onto it.
Boulanger, *Mobilier funéraire* 81 pl. 26,13.
- 102 O b e r f l a c h t 7. Length 17,7 cm; long, thin, elaborate bird head ends (fig. 18,1). Found with two flints.
Lindenschmit, *Handbuch* pl. 24; W. Veeck, *Die Alamannen in Württemberg* (1931) 297.
- 103 O z i n g e l l, Kent. Broken curved ends.
C. Roach Smith, *Collectanea Antiqua* 3 (1853) 16.
- 104 P r a g u e - K o b y l i s y 6. Plain rectangular piece without terminals.
B. Svoboda, *Böhmen in der Völkerwanderungszeit* (1965) 260 pl. 26, 11.
- 105 P r a g u e - V e l e s l a v i n 10. Plain rectangular piece without terminals.
Ibid., 269 pl. 42,10.
- 106 R i t t e r s d o r f 103. Length 16,2 cm; long and thin, fragmentary ends.
K. Böhner, *Merowingerzeit. Fränkische Waffengräber aus dem Moselland. Inventaria Archaeologica* H. 4 (1958) D 33.
- 107 R ü b e n a c h 281. Length 11,6 cm; curving ends. Found with a flint.
H. Ament and C. Neuffer-Müller, *Rübenach* (1973) 281.
- 108 R ü b e n a c h 342. Destroyed grave. The surface of the firesteel was decorated with sheet bronze stamped with repoussé decoration; there were also fragments of curved edge binding. Length 12 cm; loop ends, cf. fig. 15,3 (Ly m i n g e 22).
Ibid., 205.
- 109 R ü b e n a c h 343. A robbed grave. Fragmentary firesteel, length 14,4 cm; found with two flints. There were also several pieces of bronze edge binding, both straight and curved, as at Chessel Down.
Ibid., 206.
- 110 R ü b e n a c h 350. A robbed grave. Fragmentary firesteel, length 16,8 cm.
Ibid., 207.
- 111 R ü b e n a c h 381. Fragmentary firesteel, length about 16 cm.
Ibid., 210.
- 112 R ü b e n a c h 443. Fragments of a firesteel, length about 12 cm.
Ibid., 221.
- 113 S c h r e t z h e i m 282. A woman's grave with a horse head firesteel, cf. fig. 19,1 (Clérey).

J. Harbauer, *Katalog der merowingischen Altertümer von Schretzheim im Bayerischen Schwaben 2* (1901).

114 *Schretzheim 331*. Similar to previous piece; no details given.

Ibid.

115 *Szentes Berekhat 281*. Length 14 cm; plain, folded-over ends. Found with a flint.

D. Csallany, *Archäologische Denkmäler der Gepiden im Mitteldonaubecken (454–568 n. Chr.)* (1961) 95; 167.

116 *Testona*. R. Mengarelli (*Monumenti Antichi 12, 1902, 275*) refers to a piece from Testona, similar to the one from Castel Trosino 109, and found with a flint.

117 *Trivières*. Four examples, lengths 11–18 cm.

F. Feyder-Feytmans, *Les collections d'archéologie régionale du Musée de Mariemont* (1970) 99 pl. 47.

118 *Wintersdorf 1*. Length 15 cm; fragmentary. Found with a flint.

K. Böhner, *Inventaria Archaeologica* (cf. no. 106) D 31.

119 *Witherington, near Alderbury, Wilts.* Salisbury Museum. Length about 14 cm; bird head ends, cf. fig. 17,1 (Lavoye 289).

Abbreviations:

Boulanger, Cimetière de Marchépot	C. Boulanger, <i>Le cimetière mérovingien et carolingien de Marchépot</i> (1909).
Boulanger, Mobilier funéraire	C. Boulanger, <i>Le mobilier funéraire gallo-romain et franc en Picardie et Artois</i> (1902–1905).
Lindenschmit, Handbuch	L. Lindenschmit, <i>Handbuch der Deutschen Altertumskunde 1. Die Merowingerzeit</i> (1880–1889).
Lindenschmit, Selzen	W. and L. Lindenschmit, <i>Das germanische Totdenlager bei Selzen</i> (1848).
Marien, Vestiges	M. E. Marien, <i>Les vestiges archéologiques de la région de Lesse et Lomme</i> (1961).
Pilloy, Sép. dans l'Aisne	J. Pilloy, <i>Études sur d'anciens lieux de sépultures dans l'Aisne 1–3</i> (1895–1912).