

ROMAN SPADE-IRONS FROM VERULAMIUM, WITH SOME
NOTES ON EXAMPLES ELSEWHERE

By PHILIP CORDER

In view of the universal use of spades and shovels, it is surprising how few specimens have survived in Britain from the Roman period in comparison with the large number of other common implements like knives and shears. Three classes of spade, or shovel, were in use in Roman times. The first, resembling in form the long-handled continental shovel still in use in Cornwall and parts of Wales, had an iron blade.¹ The second, few examples of which have been preserved, was entirely of wood,² and was presumably a specialized implement of restricted use. The third, and by far the commonest, like that in use for centuries after the Roman period, had a blade of wood shod with iron to provide a durable cutting edge. It is this third type which is the subject of the following notes. On few British sites are conditions favourable to the preservation of wood, and I know of no example of a complete Romano-British spade of this type. A large implement like a spade is seldom accidentally lost: the thin iron sheath or shoe, already much worn, no doubt, before it was discarded as useless, must often have rusted away, or have survived only as a meaningless fragment, once it became separated from the wooden blade. Whatever the cause, Romano-British spade-irons are not very common objects, and little attention has been paid to their form and their method of attachment to the blade.

Three methods appear to have been employed, either separately or in combination:

(1) The iron sheath is grooved to receive the lower edge and/or the sides, or part of the sides, of the wooden blade. This method was always used to some extent. Presumably the iron was heated and shrunk on to the blade.

(2) Clips or lugs projecting from the sides of the iron clasp the sides of the blade.

(3) The sides of the iron are nailed to the edges (or very occasionally to the back) of the blade.

Parts of five spade-irons are in the Verulamium collection—an unusually large group—and four of these are sufficiently

¹ O.R.L. Zugmantel, Taf. XVI; Feldberg, Taf. VII, 22; Jacobi, *Das Romerkastells Saalburg*, 218, fig. 32, 2, 3; St.

Germain Cat., Tome I, 17806 (fig. 277). 17387 (fig. 279).

² J.B.A.A., XIII, (1857), 175.

well preserved for their original form and method of attachment to be apparent. Although all may be classed as spades rather than shovels, they represent four distinct types, as follows :

Type 1. Part of the side and cutting-edge only. The iron sheath is $1\frac{1}{2}$ in. deep and is continued around the lower corners of the blade in a sweeping curve, which projects $1\frac{1}{4}$ in. outside the edge of the blade itself. Assuming

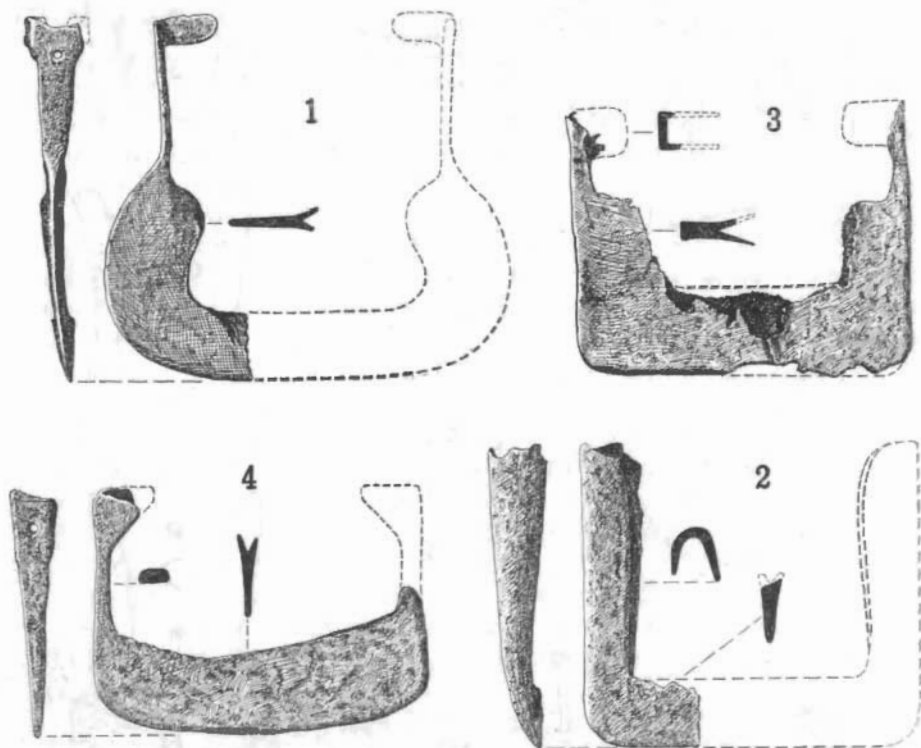


FIG. 1 ($\frac{1}{4}$)

that the wooden blade was 6 in. wide, this arrangement would provide a maximum cutting edge of $8\frac{1}{2}$ in. The sheath clasped the approximately rectangular wooden blade not only along its lower edge, but for $2\frac{3}{4}$ in. up each side. In addition there were projecting flat lugs, or clips, $\frac{5}{8}$ in. wide and about $1\frac{3}{8}$ in. long, which clasped the wooden blade 7 in. above its cutting edge at a point where it was 1 in. thick. Moreover it was nailed to the edge of the blade between the lugs (fig. 1, 1).

Type 2. Side and part of the cutting-edge of a heavy rectangular spade-sheath, assumed to have been about 7 in. wide. The sides of the iron sheath are U-shaped in section, and have clasped the wooden blade along $6\frac{1}{2}$ in. of each side. The cutting-edge of the sheath has been about $1\frac{1}{2}$ in. deep, and may have had a shallow V-shaped groove along its upper edge to receive the lower edge of the wooden blade. No nails have been used. Found in the

filling of a cellar with rubbish inserted c. A.D. 390-400 (*Verulamium*, 120-1) (fig. 1,2).

Type 3. (*Verulamium*, pl. LXV, A, 19.) Almost complete, but much reduced by rust, and now in two pieces. Spade-sheath for a blade of the same size as Type 2, but of lighter construction. The lower edge has been provided with a deep V-shaped groove to receive the wooden blade, and this

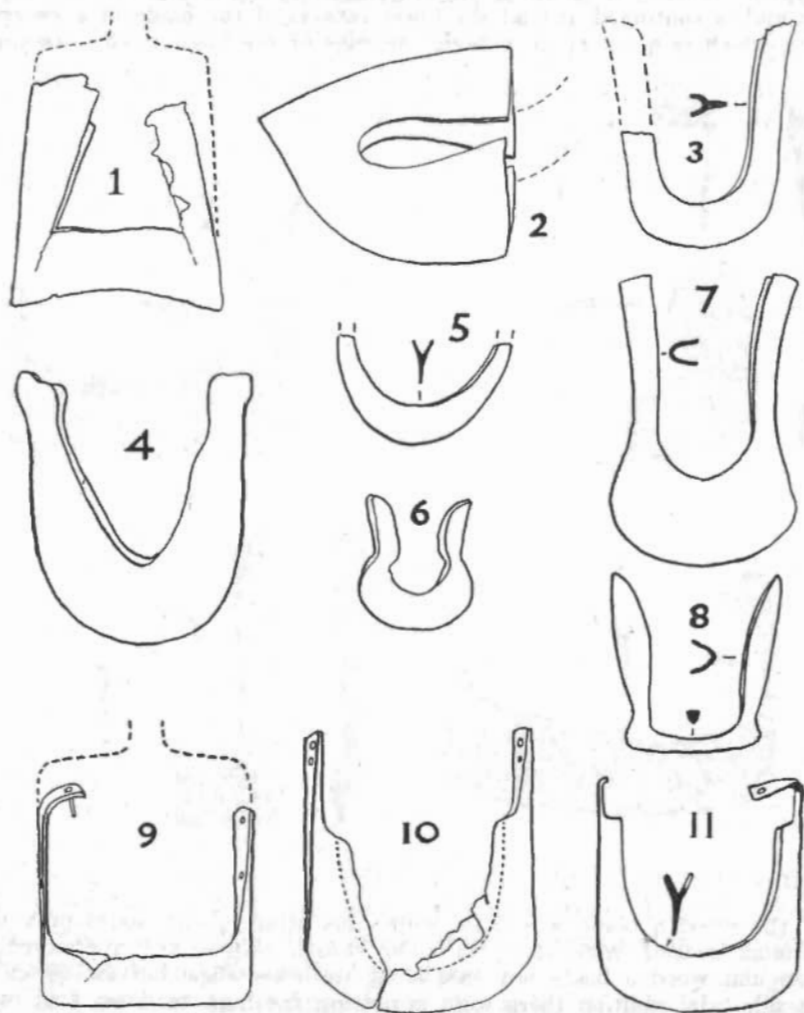


FIG. 2 ($\frac{1}{8}$)

groove is continued for $3\frac{1}{2}$ in. up each side of it. In addition the sides are furnished with large lugs, 1 in. wide, which clasp the blade at a point $4\frac{1}{2}$ in. above the cutting-edge. No nails have been used. Found in a deposit of the late third or fourth century (fig. 1,3).

Type 4. Incomplete, but sufficient remains to illustrate the method of attachment. The lower edge varies in depth from $1\frac{3}{8}$ to 2 in. and has a V-shaped groove in its upper edge to receive the lower edge of the wooden blade, which

in this type is not clasped at the sides except by clips, as in types 1 and 3, at a point $4\frac{1}{2}$ in. above the cutting-edge. These clips appear to have been triangular in shape and to have necessitated the use of a nail between the lugs, as in type 1. Unstratified (fig. 1,4).

Another example that appears to be of this type (*Verulamium*, pl. LXV, A, 20) is so reduced by rust that the exact manner of its attachment is not clear. It was found with a coin of Magnentius (A.D. 350-3), and may, therefore, be taken to be of fourth century date (*Verulamium*, 219).

No exact parallel can be quoted for any of these spade-irons, but this is without significance, as every blacksmith would have had his own practice, varied to suit his customer's wishes. Such implements, even in modern days of mass production, vary in pattern in different parts of the country, as every excavator knows.

Some notes on other examples may prove of interest: Method 1, the clasping of the blade by the sheath without the additional use of lugs or nails, was used both for large rectangular spades, like our *Verulamium* type 2 (cf. Compiègne,¹ fig. 2, no. 1), and for heavy shovels. These take a great variety of form, from the pointed blade, almost completely enclosed in its sheath (Compiègne,² fig. 2, no. 2) to the more rounded type (Chedworth,³ fig. 2, no. 3; Caerwent,⁴ fig. 2, no. 4; Woodcuts,⁵ fig. 2, no. 5). In two examples—the tiny blade, only $4\frac{3}{4}$ in. wide, from Runcion Holme⁶ (fig. 2, no. 6), and the long-bladed shovel from Braughing⁷ (fig. 2, no. 7), the sheath widens beyond the edge of the blade, as in *Verulamium* type 1, which, however, employs a completely different mode of attachment.

Somewhat similar to these last is the peculiar spade from Tiddington⁸ (fig. 2, no. 8), where the shoe grips the sides only of the blade.

Methods 1 and 3 are combined in the square-ended spade from Compiègne⁹ (fig. 2, no. 9) in which the sheath only grips the lower edge of the blade, but is carried as a flat strip up its sides to which it is fixed by two nails on each side. In the round-ended shovel from Alise-Sainte-Reine¹⁰ (fig. 2, no. 10) both the lower edge and part of the sides of the blade are

¹ Reinach, *Catalogue illustré du Musée des Antiquités Nationales* (St. Germain Cat.), Tome 1, fig. 279, 15914.

² *Ibid.*, fig. 277, 29021.

³ Chedworth Museum, 1940.

⁴ *Archaeologia*, lxii, fig. 1. Room 7, Period 4. Probably not earlier than the late 3rd cent.

⁵ Pitt-Rivers, *Excavations in Cranborne Chase*, i, Pl. xxv, 1.

⁶ P.P.S.E.A., vii, 258, fig. 52. I am indebted to Mr. E. M. Jope for this reference.

⁷ Letchworth Museum.

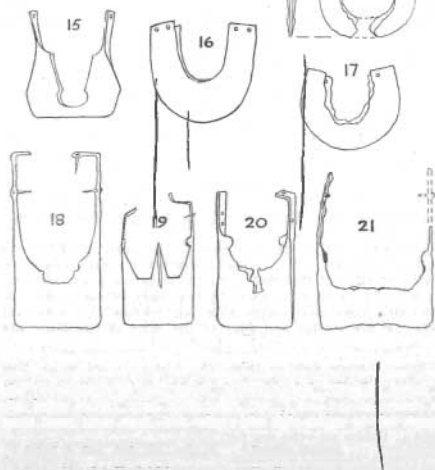
⁸ New Place Museum, Stratford-on-Avon, 1940.

⁹ *St. Germain Cat.*, Tome 1, fig. 279, 15914A and 29021.

¹⁰ *Ibid.*, fig. 282, 50840.

ROMAN SPADE IRONS FROM VERULAMIUM

clasped by the sheath each side of which is again secured by two nails. This closely resembles the spade from Bourton-on-the-Water¹ (fig. 2, no. 11), and probably also the less well-preserved examples from Westbury² (fig. 3, no. 12) and Silchester³ (fig. 3, no. 13). The Bourton example has only one

FIG. 3 ($\frac{1}{8}$)

nail on each side, and the bend in the side strip, to judge from the proportions of the blade, is accidental. Similar again is the large shovel from Silchester⁴ (fig. 3, no. 14) in which no nails have been used, but where the side strips of the sheath

¹ *Bristol & Glos. Arch. Soc.*, vol. 56, fig. 11, no. 12.

² *Devizes Mus. Cat.*, II, pl. LIV, 2, p. 175.

³ Reading Museum.

⁴ Reading Museum.

have been prolonged around the upper edge of the blade. This is the only surviving example known to me in Britain where this obviously sound method has been employed. It provided reinforcement for the portion of the blade most liable to wear from repeated pressure of the digger's foot. It indicates, moreover, that the length of the blade was 13 inches, and shows it to have tapered downwards from a thickness of at least $1\frac{1}{2}$ inches.

A large square-ended spade from Rinsheim¹ (fig. 3, no. 18) also has the strip sides carried over the top of the long blade and secured there by nails, which are also used in the sides of the blade. A peculiar spade from the fort at Saalburg² (fig. 3, no. 15) has single nails through the strip sides, and a blade that widens out rather like that of Verulamium type 1, but no

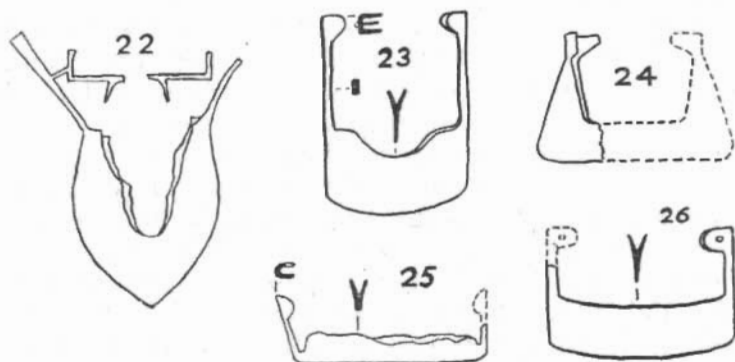


FIG. 4 ($\frac{1}{8}$)

clips are used, nor are the sides of the sheath prolonged over the top of the blade.

Two rounded shovels, from the Saalburg³ (fig. 3, no. 16) and Gonsenheim bei Mainz⁴ (fig. 3, no. 17) have sheaths like those from Caerwent and Chedworth (fig. 2, nos. 3, 4), but these are secured by one or two nails or rivets at their upper edges passing through the thickness of the blade, and not into its sides as is more usual. No example of this method of attachment is known to me from Britain unless the fragment from Newport, I.W., was attached in this way.⁵

¹ O.R.L. Abt. A. Bd., IV, Taf. 23, Nr. 31, and p. 218.

² Jacobi, *Das Römerkastell Saalburg* (1897), fig. 69, Nr. 5.

³ Jacobi, *op. cit.*, fig. 69, Nr. 4.

⁴ Lindenschmit, *Die Alterthümer unserer heidnischen Vorzeit*, Bd. III, Heft IV, Taf. IV, 5.

⁵ *Antiq. Journ.*, ix, fig. 2, 4.

Method 2, the employment of projecting clips or lugs from the sides of the shoe, is always found in combination with one or both of the other methods of attachment. A remarkable spade from Gettenau¹ in the *vicus* of the fort at Echzell, formerly in the Darmstadt Museum (fig. 3, no. 19), employs all three methods and in addition has a triangular extension of the shoe, with a central rib, down the middle of the blade. The strip sides of the shoe were also prolonged around the upper edge of the blade, as in the Silchester spade just described. A similar spade from Osterburken² (fig. 3, no. 20) is without the triangular extension, but also employs both lugs and nails. A spade from Pfünz³ (fig. 4, no. 23) uses all three methods, the nails being driven into the sides of the blade as in Verulamium types 1 and 4. Two examples from Colchester,⁴ one of which is illustrated (fig. 3, no. 21), are probably of this type, though the sides of the sheaths are not well preserved. A similar spade found in excavating the foundations of the London and Westminster Bank in 1865⁵ used both lugs and nails. To this group must be assigned part of a spade from Jagshausen⁶ (fig. 4, no. 24), the blade of which is splayed out towards the straight cutting edge as in Verulamium type 1, though it appears that nails were not used. A spade from Silchester⁷ (fig. 4, no. 25) has a sheath that only grips the lower edge of the blade, and the strip sides, that end in projecting lugs, are exceptionally short. Nails were not used in combination with the lugs, and it is difficult to see how the sheath can have remained attached. It is just possible that rivets were used passing through the V-shaped lower edge, though the state of preservation of the iron makes it impossible to assert this with confidence.

A spade from Chedworth⁸ (fig. 4, no. 26) is remarkable in having the nails, or rivets, passing through the lugs themselves into the back of the blade, and not into the sides, as in other examples noted.

A spade from Heddernheim (fig. 4, no. 22), illustrated by Lindenschmit⁹, defies classification as its exact method of

¹ *VII Bericht d. Rom.- Germ. Kom.*, 1912, S. 158, Abb. 79.

² *O.R.L.*, Nr. 40, Abt. B. Bd. IV, Taf. VII, Nr. 58.

³ *O.R.L.*, Abt. B. Bd. VII, Taf. XVII, Nr. 34.

⁴ Colchester Castle. I am indebted to Mr. M. R. Hull for a photograph of these two spades. *Research Committee of the Soc. Ant.* (forthcoming), pl. CV, 28, 29.

⁵ *J.B.A.A.*, XXXI (1875), 84.

⁶ *O.R.L.*, Nr. 41, Abt. B. Bd. IV, Taf. III, 18.

⁷ Reading Museum.

⁸ Chedworth Museum (*National Trust Cat.*, 1929, no. 65) described as a meat-chopper.

⁹ Lindenschmit, *op. cit.*, Taf. IV, Nr. 6.

attachment is not clear. The sheath clasps the unusual pointed blade and is prolonged as a strip up the sides. The attachment shown in the drawing, if one supposes it to have become reversed, perhaps formed the continuation of the strip sides round the upper edges of the blade, with additional straps at each side of the wooden handle.

Few of these spades are independently dated, and, in the present state of our knowledge, no typological sequence can be offered.