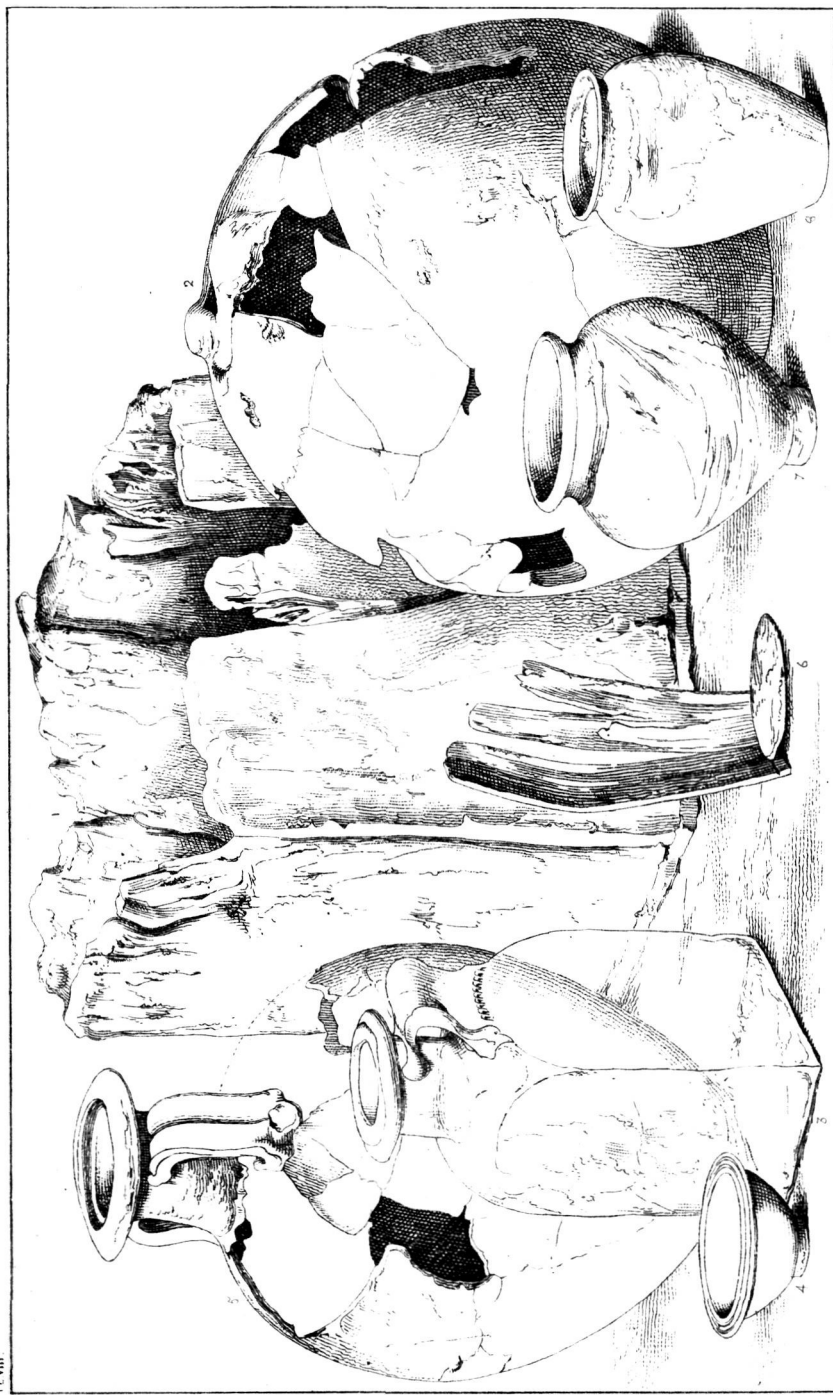


HEARSE-CLOTH OF THE VINTNERS' COMPANY.



ROMAN ANTIQUITIES DISCOVERED AT MOORFIELDS.  
IN THE POSSESSION OF J. WALKER BALLY ESQ.

the whole district was levelled and laid out in walks with trees and gravel paths, and became a favourite place of recreation for the citizens.

The interment under consideration is both *in situ* and complete. As before observed, it is one after cremation, there being no evidence of human bones entire; most of the vessels contained fragments, but all bore evidences of fire. The wooden box or cist, fig. 1, is extremely curious. It is of oak and of a cubical form. It measures about 18 inches on each side, and resembles in design and size the tile tombs that have been so frequently discovered, one of which was found but a short time since at Windsor, and with its contents presented by Her Majesty the Queen to the British Museum.

Cists of wood are not often found. One containing human bones entire was exhumed a few years since in West Smithfield, and has been referred to in our journal; but so perishable a material would in the lapse of centuries naturally become decayed, though the presence of the numerous iron nails so often found in Roman graves are evidence of the fact that coffins or cists of wood were in extensive use. It was the practice after placing the remains within the cist to cover up the whole with a flat tile or stone, and in this case we might imagine that the simplest plan would have been to cover the cinerary urns with a lid of the same material as the cist; but here a singular covering has been adopted, and one which may or may not have had some special significance. It is shown in fig. 2, and is a domed covering formed of earthenware and of considerable thickness; it may have been constructed for the purpose, or may be portion only of an amphora or dolium so broken as to adapt it to the cist. Its widest diameter is 21 inches; but, having a tapering form, it would be fractured at such dimensions as to enable it to rest securely on the wooden edges of the tomb. The appropriation of such earthenware vessels to sepulchral purposes is by no means uncommon; examples are recorded as being intentionally fractured for the purpose of inclosing the charred remains and again restored. In the excavations at Colchester\* in 1844 one was

\* Vide *British Archaeological Association Journal*, vol. i. p. 239.

found thus broken at the neck and handles. It contained a lachrymatory and lamp, a cinerary urn, and a coin of Faustina, with other objects; and the upper portion had been clearly reinstated by the depositors after the contents had been incased. Fig. 5 represents a vessel of light-coloured earthenware which was found in the vicinity of the tomb. It was much broken, but Mr. Baily has succeeded in so restoring it as sufficiently to indicate its form. It stood nearly 22 inches high, with a diameter at its greatest width of 15 inches, and affords another example of vessels in ordinary household use accompanying interments.\*

The glass bottle, fig. 3, was partially filled with calcined bones, and its mouth covered by the small cup or patera shown by fig. 4 in the illustration. The bottle stands  $14\frac{3}{4}$  inches high by 7 to 8 inches square; it is of the familiar bright green glass, and was perfect when first discovered. It is of the type usually found in graves. Colchester, Hartlip, and other places have produced numerous examples, but perfect specimens have not been often recorded in London discoveries. The two urns figs. 7 and 8 are of rough pottery, doubtless of the Upchurch manufacture. The larger measures  $8\frac{5}{8}$  inches high by  $8\frac{1}{4}$  wide, the other  $8\frac{1}{2}$  inches high by  $7\frac{3}{4}$  wide; the latter was inclosed by one of the most interesting objects in the collection, and some remains of which are illustrated by fig. 6. It consists of a small wooden keg or tub, and at present I am unable to refer to any other example of the kind as occurring in our own country. It possibly once served its use in the household of the deceased, and was considered as a fitting covering for the contents of the urn. It is on a small scale, much on the model of the *cupa* mentioned by Pliny † and other authors as a cask or butt with wooden staves, and bound together by “*circuli*” or hoops of iron; sometimes it was of stone or earthenware, and was employed by the Romans for storing wine, vinegar, or other liquids, and in transporting them from

\* The custom of entombing such vessels with the remains of the deceased was practised by other nations besides the Romans. See Nicolo de Coti on the customs of the Indian tribes, Belleforest's *Cosmography*, vol. ii. book iii. ch. 29. “The Moldavians, Caubees, and other people used the custom, and modern history tells us the Chinese and Peruvians adopt it.”

† Pliny, II. N. xiv. 27.

place to place. Examples of the *cupa* may be seen among the numerous interesting objects illustrative of Roman life and manners which are sculptured on Trajan's column,\* and it is singular to note how its form has remained unchanged to the present day.† *Cupella* as diminutive of *cupa* would refer to a similar vessel of smaller size, and may be applied to the object we have figured, which is made of pine-wood,‡ the material (especially in the time of Pliny) employed in their fabrication. Its connection with the interment is peculiar, and may be the result of an old custom or tradition. The old writers tell us that the *cupa* was sometimes employed in funeral customs, and cite its connection with *amphoræ*, *ollas*, and *cineraria*.§ There is also among the inscriptions preserved by Gruter one in which it is especially mentioned: *IN HAC CVPA MATER ET FILIVS POSITI SVNT*,|| &c.

With the exception of the *amphora*, fig. 5, all the objects above described were contained in the wooden cist. No coins of any kind were discovered.

On reference to a map, it will be noticed that this interment, though at some distance from the main thoroughfare, occupied an isolated position on the ground adjoining the highway leading from Bishopsgate Street to Norton Folgate and Spitalfields by the site of one of the cemeteries of Roman London, an account of which, as given by Stowe, I have transcribed as applicable to the subject:—

On the east side of the churchyard lieth a large field, of old time called Lolesworth, now called Spittlefield, which about the year 1576 was broken

\* Montfaucon, *Antiquité Expliquée*, book 3, vol. iv. p. 79.

† In the *Archæologia*, vol. xxxiv., is a paper by J. Y. Akerman, Esq., F.S.A., descriptive of some Roman Remains at Stone, Aylesbury, Bucks, in which reference is made to Pignorius de Servis, p. 266, edit. 1656, as containing a representation of an ancient sculpture in marble dug up at Augsburg in 1601, on which are seen the *Vinitores* stowing away casks formed like those used by the moderns.

‡ I am indebted to B. Clarke, Esq. F.R.C.S., for the information concerning the material of which both the coffin and this small vessel are composed. He kindly submitted fragments to the microscope, and was enabled to pronounce them as being oak and pine respectively.

§ Vide Nicolai Rigaltii *Observationes et Notæ Rei Agrariæ Auctores Legesque variæ*, 1674, p. 284. || Gruter, *Inscriptiones*, i. p. 845.

up for clay to make brick, in the digging whereof many pots called urnæ were found full of ashes and burnt bones of men; to wit, of the Romans that inhabited there, for it was the custom of the Romans to burn their dead, to put their ashes in an urn, and then to bury the same with certain ceremonies in some field appointed for that purpose near unto their city. Each of these pots had in them with the ashes of the dead one piece of copper money with the inscription of the Emperor then reigning; some of them were of Claudius, some of Vespasian, some of Nero, of Antoninus Pius, of Trajanus, and others. Besides these urns many other pots were found in the same place, made of a white earth, with long necks and handles like to our stone jugs. These were empty, but seemed to have been buried full of some liquid matter long since consumed and soaked through, for there were found divers phials and other fashioned glasses, some most cunningly wrought such as I have not seen the like, and some of crystal, all which had water in them nothing differing in clearness, taste, or savour from common spring water, whatsoever it was at the first. Some of these glasses had oil in them very thick and earthy in savour: some were supposed to have balm in them, but had lost their virtue. Many of these pots and glasses were broken in cutting of the clay, so that few were taken up whole. There were also found divers dishes and cups of a fine red-coloured earth which showed outwardly such a shining smoothness as if they had been of coral: those had in the bottoms Roman letters printed. There were also lamps of white earth and red artificially wrought with divers antiques about them. Three or four images made of white earth about a span long each of them. One of them, I remember, was of Pallas, the rest I have forgotten. I myself have reserved amongst divers of those antiquities there found one urna with the ashes and bones, and one pot of white earth very small, not exceeding the quantity of a quarter of a wine pint made in the shape of a hare squatted upon her legs, and between her ears is the mouth of the pot. There have also been found in the same field divers coffins of stone containing the bones of men. These I suppose to be the burials of some special persons in the time of the Britons or Saxons after the Romans had left to govern here. Moreover there were also found the skulls and bones of men without coffins or rather whose coffins being of great timber were consumed. Divers great nails of iron were there found such as are used in the wheels of shod carts, being each of them as big as a man's finger, and a quarter of a yard long, and the heads two inches over. Those nails were more wondered at than the rest of things there found, and various were the opinions of men concerning them, namely, that the men there buried were murdered by driving those nails into their heads, a thing very unlikely, for a smaller nail would more readily serve so vile a purpose, and a more secret place would very probably be employed for their burial. But, to set down what I have observed concerning this matter: I there beheld the bones of a man lying, as I observed, the head north, the feet

south, and round about him, as over his head, along both sides, and over his feet, such nails were found. Wherefore I conjectured them to be the nails of his coffin which had been a trough cut out of some great tree, and the same covered with a plank of great thickness fastened with such nails, and therefore I caused some of the nails to be taken up, and I found, under the broad heads of them, the old wood almost turned into dust or earth, but still retaining both the grain and proper colour of these nails with the wood under the heads thereof. I reserved one, as also the under jaw-bone of the man, the teeth being very great, sound, and fast fixed, which amongst many other things there found I have yet to show, but the nails lying dry are by scaling greatly wasted.\*

Such was the nature of one of the cemeteries on the north of the Roman settlement; and to indicate the situation of others which existed on the open sites adjacent to the city, such as West Smithfield, St. Paul's Churchyard, Minories, Whitechapel, Goodman's Fields, and other places, admits of but little difficulty; as also the position of many of the burials which lined the public roads from the metropolis to the country. For the poor there were probably, in addition to the cemeteries, *puticuli*, or grave-pits, for the reception of the bodies of those who were in too humble a class of life to incur the expense of sepulture, or the more costly rites of cremation. Such are mentioned in the early texts as being on the waste and unappropriated public land. "Sunt in suburbanis loca publica inopum destinata funeribus, que loca culinas appellant."† They are referred to along with sites perhaps also assigned to the punishment of malefactors, and which, as vacant ground, were turned to various uses by the common people.‡ Where, however, we find a sepulchre possessing unusual characteristics, such as the interment just described, or as the marble sarcophagus at Upper Clapton, the stone coffin at Notting Hill, the interments at Eastham,§ or the tomb at Tinwell near Stamford,|| together with records of sepulchral remains observed in

\* Stowe, *Strype's edit.* vol. i. 428.

† *Aggeni Comment. in Frontin.* p. 60. *Rei Agrariae Auctores, &c.* 1674.

‡ "Sunt et loca noxiorum pœnis destinata. Ex his locis cum sint suburbana sine ulla religione reverentia, solent privati aliquid usurpare, atque hortis suis applicare."

§ *Essex Arch. Transactions*, 1867.

|| *Notes and Queries*, vol. ii. series 4, p. 482.

places hitherto unsuspected, and sometimes even within the limits assigned to the Roman city, the facts become of more than ordinary significance, and suggest the probability that the conditions under which such isolation has arisen are open to further explanation. The sarcophagus at Upper Clapton adjoined the course of an old footpath, and the stone coffin at Tinwell was in a similar position. Mr. Joseph Phillips, of Stamford, informs me that it was by the side of a footway which leads direct from the Roman road by Stamford town end to the village of Tinwell, and further that since its discovery a tessellated pavement has been exhumed some fifty yards south of the said path. The general character of this pavement, which was 7 feet long by 6 wide, and contained an ornamental centre about 3 feet by 3, formed in colours of white, blue, and red, was, together with portions of walls, ridge-tiles, and fragments of red stucco, sufficient to indicate the existence of an important villa residence in the vicinity of the tomb. A solitary coin was discovered, viz. a denarius of Valerian: the reverse, an altar with fire burning, and the legend CONSECRATIO. In London during the autumn of 1839 a skeleton was discovered in the middle of Bow Lane, at the depth of 15 feet, lying north and south in a kind of grave formed with the large drain tiles placed edgewise.\* In its mouth was a second-brass coin, so much corroded as to be quite illegible and defaced; nearer Cheapside, at some distance from the skeleton, were abundant remains of pavements, walls, and frescoes.† In Paternoster Row Mr. Charles Roach Smith, F.S.A., records the discovery of a tessellated pavement of superior class, at the depth of 12 feet 6 inches from the surface. It extended at least 40 feet, and was of superb ornamentation and design. At a still greater depth from the roadway "was a skeleton in a tile tomb," deposited, of course, long anterior to the construction of the pavement.‡ In the summer of 1842, in the course of excavations for sewerage in Queen Street, Cheapside, numerous cinerary urns of a rude style of art were found; in one of them the remains of human bones adhered so

\* *Arch.* vol. xxix., "Roman Remains," C. R. Smith, F.S.A.

† The skull, coin, and tiles are preserved in the Museum of the Corporation of London, at Guildhall.

‡ *Illustrations of Roman London*, C. R. Smith, F.S.A.



firmly as to have the appearance of being part and parcel of the vessel; for, as was chemically explained, the alkali in the bones (doubtless deposited before they were allowed to cool) had united with the siliceous matter in the clay. Among the remains when forcibly separated from the vessel was easily recognised a portion of the nasal bone. There were five of these jars, some containing only mud and charcoal. From these excavations there were also exhumed fragments of tessellated pavements, broken amphoræ, urns, mortaria, Samian pottery, boar's tusks, with other relics, also a second-brass coin of the Emperor Nero.\* We have here examples of burial of both kinds occurring within the present city limits; and as, in obedience to the civil law, interments were forbidden within the walls, we may presume that they were the graves of some of the earliest settlers in the Roman colony, and interred long anterior to the extension of the city. It is true that under Roman legislation there were special privileges and protection accorded to land once used for burial; but if necessity required, as in the gradual growth of towns, it could by a special edict be alienated from its original possessors and devoted to the service of the state. To account for such discoveries, and those at Upper Clapton, Notting Hill, &c., with others that could be noted, we may have recourse to information given by some of the agrimensorian writers, which, thanks to the investigations of Mr. W. H. Black, F.S.A. and Mr. H. C. Coote, F.S.A. are just now receiving some attention at the hands of archæologists. In my former paper I have mentioned that the possessors of estates were often buried within the limits of their own property, and have quoted a passage from one of these early treatises to show that in the assignation of estates which followed on the conquest of new territory sepulchres were frequently placed at the lines of demarcation to serve as boundaries or landmarks in the division and limitation of the land.† There are many details of interest concerning the appropriation of territory to be found among the agrarian laws which relate to such distribution. As the Romans extended their conquests in different quarters of the globe, they, in assuming their rights as victors, had the land carefully surveyed, founded colo-

\* Vide paper by the late E. B. Price, F.S.A., *Gent. Mag.* 1843.

† *Transactions of the London and Midd. Arch. Society*, part ix. p. 197.

nies and cities, and parcelled out the available soil, with fixed and certain allotments to the new settlers, all upon a principle of limitation which is as wonderful as it is curious; and in this way the government, institutions, laws, and even the habits and customs of the people became permanently fixed on foreign soil. Sometimes the natives were allowed to retain possession of their lands, but these were exceptional cases.

In an interesting paper by Mr. Coote on Centurial Stones, he remarks, "that to the hardy and combative barbarian who could make out no claim to such a merit the doom was simple and unmitigated confiscation of the soil of his country;" and in applying his remarks to this country, he observes, "that it was a process through which each barbarian country subjected by Rome was compelled to pass, for, as the barbarians in all cases resisted their destiny, no favour was sought or could be obtained at the hand of Rome. That this was the lot of Britain history leaves no doubt, and it being so we can only conclude," says Mr. Coote, "that the soil of this country was confiscated and partitioned in the manner which I have described."\* In a valuable communication just published in the *Archæologia*,† Mr. Coote describes the natural and artificial boundaries which are mentioned by the old writers, the various terminal stones, &c. which marked the divisions of estates, and quotes unequivocal instances of such termini as are described as having been often found in England, though their origin and use has hitherto been imperfectly understood. He also directs attention to the subterranean signs adopted by the surveyors "to supply the place of those which should be removed from the surface, or which from a scarcity of material might not have been put there." Among other things, mention is made of the "Arca finalis," a walled construction more or less sunk in the earth, and intended to define the site where the angles of adjoining possessions met. The arcæ were of various kinds, and contained objects differing in character, but each form having its significance as a terminal boundary.

In a subsequent essay‡ Mr. Coote gives a full account of the

\* *Proceedings of Soc. Antiq. of London*, 2nd ser. vol. iv. No. 1.

† Vol. xlii. *Centuriation of Roman Britain*, II. C. Coote, F.S.A.

‡ *Proc. of Soc. Antiq. of London*, 2nd ser. vol. iv. No. 5.

arca, and illustrates his remarks by a discovery which occurred at Preston in Dorsetshire in the year 1843, and was described by Mr. C. Warne, F.S.A., in the *Gentleman's Magazine*.\* The particulars of this discovery I am induced to quote, for the reason that, if satisfactory evidence can be given of the existence in our country of this particular class of sign among the many which are referred to by the agrimensores, we are justified in assuming that others to which they also refer may possess the same significance here as they did abroad; and so, among other things, we shall obtain the clue to the meaning which is intended by the position of many of the sepulchral deposits which from time to time have been discovered.

The dry summer of 1842 having shown in the then growing crops of corn in a field at Preston indications of extensive buildings, excavations were in the spring of the past year made, which soon brought to view the foundations of a massive wall, five feet in thickness, and forming a square of about 280 feet: within this quadrangle was the foundation of another building 35 feet square; the soil within this inner building was removed, and the few coins and fragments of pottery which were turned up clearly proved it to be of Roman origin. But the most singular discovery made was that of a shaft sunk in the south-east corner, which was about 4 feet by 2½ feet in diameter, and nearly 15 feet deep. The contents of this pit were of a very peculiar character; the sides had thin flat stones placed round, which, from holes in many of them, appeared to have been previously used for the covering (as at the present day) of a roof. On penetrating into the shaft a layer of charcoal and ashes was met with; then a double layer of the same description of flat stones covered the whole area of the shaft; between these stones was deposited a quantity of small (chiefly bird's) bones and thin brass coins of apparently the Lower Empire, but their condition was such that (with the exception of one of Theodosius) they could not be appropriated. Six or seven of these layers of charcoal and flat stones, with bones and coins, were continued in succession, when a straight sword, about 22 inches in length, and much corroded, was found. Under this were seven more continuous layers as before, which brought us to the bottom of the pit; here was a larger sword, 36 inches long, and straight as the other, with numerous fragments of iron, viz., spear-heads, rings, crooks, part of the handle of a bucket, of similar shape with that in use in the present time, and various other articles, all which appeared to have undergone the action of fire. With these were also fragments of coarse pottery, and two vessels of the same description of ware, which were

---

\* *Gent. Mag.* vol. xxi. N S. pp. 185, 186.

entire, and whose shape indicated their adaptation to domestic uses. The shaft was probed to its bottom; but as the land was about to be sown with corn, it was necessary that the excavations should here be discontinued; a circumstance to be regretted, as but a small portion of the ground in the space between the outer and inner walls was moved. The only interesting objects here discovered were the bases of two pillars of apparently the Doric order, both of which must have been displaced from their original position. The numerous fragments of Roman pottery strewn over the adjoining soil, as well as the circumstances of the finding in the same field, in 1812, an urn filled with Roman coins, chiefly of the tyrants from Gordian to Posthumus (many of which, in the finest condition, I have in my collection) establish the fact of extensive Roman occupation. I feel a diffidence in hazarding a conjecture on these singular discoveries, particularly as regards the shaft, further than that I think it is quite evident that its contents must have formed a series of sacrificial deposits. With reference to the building itself, I would merely suggest the probability of the interior portion having been used by the Romans as a *Pharos*, of which the outward wall was used as a protection. The substructure occupied a site most advantageously placed for such an object, being situated about a quarter of a mile from the shore, on an eminence commanding the whole of the beautiful bay of Weymouth, in addition to an extensive view of the channel. An ancient *via* which led from hence to the landing place on the shore is still easily traced.\*

The remains of buildings referred to in the description are considered by Mr. Coote to be such as are mentioned in a treatise on the *Agrimensura*,† by Julius Frontinus, who says that it was the

\* From a report of a meeting of the Ashmolean Society, at which the late Dr. Buckland read a paper on the above discoveries, we glean that between each pair of tiles was the skeleton of one bird with one small Roman coin, and above the upper tier of tiles another bed of ashes. Similar beds, each inclosing the bird and coin, were repeated sixteen times between the top and bottom of the well. The birds referred to were the raven, buzzard, crow, and starling; there were also bones of a hare. Vide vol. xxii. *N.S. Gent. Mag.* pp. 635, 636, quoted by Mr. Coote. Also report in the *Times* of 18 Nov. 1844.

† Sextus Julius Frontinus lived in the reigns of Nerva and Trajan, and was Proconsul in Britain A.D. 75-8. He was the author of several military works, and wrote besides the "*De re Agraria de Limitibus*," "*De Aquæductibus Urbis Romæ*," in two books, and the "*Strategematicon*," in four. Of the latter work Mr. Roach Smith informs me that a translation was made some years ago by the late Mr. Scott, of the Charter-house. Stewechius supposes him to be the same person mentioned by Tacitus, *Hist.* iv. 39, and again in the *Life of Agricola*, c. 17, where he gives him the character of an excellent officer. Vide *Military Institutions of Vegetius*, by Lieut. John Clarke, 1767.

practice of proprietors to build a temple upon the confines where the possessions of three or four of them met.

I am indebted to Mr. W. H. Black, F.S.A., for a reference to the important discovery of a shaft or pit which was found at Bekesbourn Hill, near Canterbury, and an account of which, by Mr. John Brent, Jun., F.S.A., is published in the second volume of the *Archæologia Cantiana*. It is there described as a sepulchral shaft, but the following particulars, taken from Mr. Brent's communication, for comparison with the above, will show that it may possess a more important significance, be placed in the same category, and afford another example of agrimensorial signs.

Oaken beams a foot square first appeared, and then the planking of a quadrilateral oaken shaft to the depth of six feet, then heavy cross-beams, then planking again terminated by four cross beams as at the top. These lay twenty-five feet below the surface. The cross-beams were 6 feet 6 inches in length, firmly mortised together. The planks were mortised or rabbeted together, and let into the beams, each plank being pierced by transverse ties, crossing the corners of the shaft inside, and giving to the entire structure the appearance of having a flight of steps or stays within. These ties projected two or three inches on the outside. There was no appearance of iron or any other metal having been used in the construction of the shaft, but the whole fabric was closely and skilfully knit together by the mortises and ties, while the weight of the materials themselves and the pressure of the soil around prevented any of the parts becoming displaced. The entire fabric was of oak; the cross-beams evidencing by their grain that they were the product of large trees. The wood had become jet black by age; but, although somewhat soft on the surface, was hard and compact at a short distance within. The interior quadrature of the shaft was 3 feet 3 inches, the cross-ties about a foot long, the beams 6 feet 6 inches and 12 inches square. The soil where the fabric was found was gravelly at the surface, lower down of sandy loam.

The beams and planks were probably all hewn by the axe, yet were as neatly fitted and as well proportioned as if done by a skilful artisan in the present day, each mortised plank exactly corresponding with the one above it. We have been thus minute in detail, as we know of no other example of carpentry ever having been found so perfect, of the undoubted antiquity of the fabric we have described. As it was cleared away from the soil, it loomed out against the dark earthen bed from which it had been excavated like a mysterious record of a past and unknown age, exhibiting in some respects features new and strange. The top of the shaft when found was covered with oaken planks, the structure being entirely filled with large flints: the workmen speedily broke down one side, and threw out the

stones. As they approached the base they came upon a single urn about 10 inches in height and formed of bluish black clay. It was protected by large flints in some manner arched over it. Beneath it was a layer of flints, then five urns, one central and one in each corner of the shaft. Among the latter was an urn with a large piece of baked clay placed over its mouth.

Mr. Brent goes on to say that he was present at the spot shortly after the contents were removed from the shaft, and found fragments in the soil taken out of it, and from the pieces he obtained he concluded that there were seven or eight urns within the entombment.

Nothing but a soft white clayey matter was found within the urns, and these were thought to be burnt bones in a deliquescent state. Some substance of a fibrous texture was found. This might have been yarn which went round the necks of the urns, or matting or woollen cloth laid over their mouths. Upon exposure to the air it speedily dissolved, as did for the most part some walnut or filbert shells. Beneath the last deposit of urns was a flat piece of stone over a concavity in the earth at the bottom of the shaft. It was kept in its place by six pegs apparently of chestnut-wood pinned around it. On the stone imbedded in the soil was arranged a circle of horses' teeth.

For comparison with this and the preceding extraordinary discovery I append the particulars of a construction of like character found in London about the year 1835, and which, from its local connection, is of especial value in our present investigations. The account is given in a paper by my esteemed friend Mr. Charles Roach Smith, F.S.A., and appears in vol. xxix. of the *Archæologia*.

But the most important discovery in the line of excavation from Lothbury to the Wall, was made on the Coleman Street side, near the public house called the Swan's Nest, where was laid open a pit or well containing a store of earthen vessels of various patterns and capacities. This well had been carefully planked over with thick boards, and at first exhibited no signs of containing anything besides the native gravelly soil, but at a considerable depth other contents were revealed. The vases were placed on their sides longitudinally, and presented the appearance of being regularly packed or embedded in the mud or sand, which had settled so closely round them that a great number were broken or damaged in being extricated; but those preserved entire, or nearly so, are of the same kind as the handles, necks, and pieces of the light brown coloured vessels met with in such profusion throughout the Roman level in London. Some are of a darker clay approaching to a bluish black, with borders of reticulated work running round the upper part, and one of a singularly elegant form is of a pale bluish colour with a broad black border at the bottom. Some are

without handles, others have either one or two. Their capacity for liquids may be stated as varying from one quart to two gallons, though some that were broken were of much larger dimensions. A small Samian patera, with the ivy-leaf border, and a few figured pieces of the same were found near the bottom of this well, and also a small-brass coin of Allectus, with reverse of the galley, "Virtus Aug." and moreover two iron implements resembling a boathook and a bucket-handle; the latter of these carries such a homely and modern look, that, had I no further evidence of its history than the mere assurance of the excavators, I should have instantly rejected it from suspicion of its having been brought to the spot to be palmed off on the unwary, but the fact of these articles being disinterred in the presence of a trustworthy person in my employ disarms all doubt of their authenticity. The dimensions of the pit or well were about 2 feet 9 inches or 3 feet square, and it was boarded on each side with narrow planks about 2 feet long and 1½ to 2 inches thick placed upright, but which framework was discontinued towards the bottom of the pit which merged from a square into an oval form.

This deposit, which, from the presence of the coin of Allectus, is shown to be of comparatively late date, was, whatever its intention, probably near the bank of the ancient Wallbrook. The "Swan's Nest" public-house, near which it was discovered, still exists, and is situate in Great Swan Alley, Moorgate Street, at the back of Lothbury. The old watercourse, after leaving Broker's Row, fell into the town ditch by Allhallows in the Wall, leaving it at the top of Little Bell Alley, into which Swan Alley runs. It then took a sharp turn in its direction by St. Margaret's, Lothbury, where it crossed what is now Prince's Street, and pursued its course beneath Grocers' Hall and St. Mildred's Court.\* It would be difficult now to affix the precise spot of the discovery, but anywhere in the vicinity of the "Swan's Nest" could not have been far from the natural boundary marked by the bank of the ancient stream.

I cannot but think that here we have an example of the same family, and a monument belonging to that class of discoveries which are now applied to Britain by Mr. Coote. Its location in

\* I am indebted to Mr. Alfred White, F.S.A., F.L.S., for much assistance in tracing the precise course pursued by the ancient brook. We have in preparation a plan which will indicate its route from Hoxton to Dowgate, and show, as far as possible, the sites of the many discoveries of interest that have been made along its banks.

the metropolis invests it with peculiar interest. There is here the quadrangular shaft, differing only from that described by Mr. Warne in its being of wood in place of tile or stone. There is evidenced the same intentional care with which the pottery, both broken and entire, has been deposited, proving, as in the other cases, that its presence in the shaft was designed, and not accidental; and moreover, the coincidence in the finding of the crook and bucket-handle at both the Preston and London discoveries is so far striking as to make it worthy of remark. In both cases I imagine that the crook may be considered to have had its use in connection with the bucket-handle in the deposition of the contents of the pit, and that in each instance the woodwork of the bucket has naturally perished.

Since the foregoing was in type my attention has been directed to a discovery recorded in the last number of the *Numismatic Chronicle*, and which, in all probability, is a further illustration of the "Arca finalis." The facts are interesting, and are thus described in a paper by Samuel Sharpe, Esq. F.S.A. F.G.S. entitled "Roman Coins found in Surface Soil, Ironstone Pits, Duston, near Northampton:" "Three grave-like excavations in the ironstone immediately below the surface soil were a short time ago discovered. These had a depth of some four feet in the rock, were arranged in a radiating position, and had a flooring covered with ashes, among which some burnt stones were found, and a nest of Romano-British *minimi*."\* Coins are mentioned by the old authors as among the objects sometimes placed below termini—*sic*. "Quia de limitibus curavimus exponere, sub terminis qualia signa invenimus? aut calcem, aut gypsum, aut carbones, aut vitria fracta, aut cineres, aut testam tusam, aut *decanummos vel pentanummos*." †

Sometimes the arca was connected with sepulchres, and had funereal monuments placed upon it: ‡ "quia arca aliquoties circa sepulchrum sine dubio ponitur, et super ipsam arcam *memoriae* constitutæ." This is termed the "arca consecrata in memoria,"

\* *Num. Chron.* vol. ix. N.S. p. 169.

† *Expositio Limitum*, &c. *Var. Auctores*, p. 265.

‡ *Var. Auctor. de Limitib., Rei Agrariæ Auctores*, &c. p. 273.



“ et quod sanctius videtur antiquitus nobis sic convenit mensura, ut in ipsa memoria consecrata arca finalis.”

Among liminary signs the *botontoni*, or mounds and hillocks of earth, held a conspicuous position in the agrimensorian system. These artificial elevations and their contents possessed a peculiar meaning; and the proper elucidation of their significance is possibly more abstruse than anything else appertaining to the subject; yet, the fact of their existence in this country attracted the notice of a well-known writer of the last century. Gough in his edition of Camden remarks: \* “ The writers of boundaries say little hillocks of earth, called *botontines*, were placed on bounds, so that I am apt to think most of the *tumuli* and round hillocks we see scattered up and down the country were raised for that purpose, and that ashes, coals, potsherds, &c.† would be found under them if searched.” “ Silbury Hill,” says Mr. Coote,‡ “ is a grand example of the *botontinus* ;” of this Gough says, “ Major Drax, digging perpendicularly through this hill in 1777, found only a rotten post and a rusty knife.” The post was an example of the *palus picatus*,§ referred to in the list of termini given by the old writers. Numerous other discoveries throughout England fully illustrate the observations of Gough, and show the supposition to be erroneous that would regard all those turf-covered elevations which are here and there dotted on our hills and downs as sepulchral barrows; many of them we know have, on examination, proved to be *tumuli* raised above the remnants of the dead; and with *these* the position may sometimes be illustrative of boundary or limit; but how frequently has observation shown, from the entire absence of human remains and the existence of such *débris* as is mentioned by Gough, that they could not possibly have had any connection with interments. It is a noteworthy circumstance that the meaning intended by such mounds as are not sepulchral has lately become a subject of interest to the antiquaries of France. In the course

\* *Gough's Camden*, ii. 271.

† Objects usually selected by the Agrimensors to indicate the intention of the mound.

‡ *Centuriation of Roman Britain*, *Arch.* vol. xlii.

§ *Expositio Terminorum*, &c. *Var. Auctor. de Limitib.* p. 267.

of some recent correspondence, Mr. Coote very kindly calls my attention to a notice which appeared in a recent volume of the *Revue Archéologique*,\* the which mentions that M. Thomas, after having examined two *tombelles* (*tumuli*) in the territory of Fruzon, and found nothing but paving stones, fragments of red pottery, pieces of charcoal, and bits of tiles, asks, “si ces tombelles ont du servir à des sepultures, l’absence de tous débris humains lui semblerait indiquer le contraire ;” and further, that, in a later volume of the same work, M. Brunet de Presle is stated to have † “signalé à l’academie divers passages du recueil des agrimensores relatifs à l’habitude qu’avaient les anciens de marquer certaines limites à l’aide de tumulus artificiels; le mode de construction de ces tumulus est indiqué dans les textes en sorte qu’il ne sera pas impossible de decouvrir, parmi les nombreux tumulus signalés sur notre sol, et qui ne sont des tombeaux, ceux qui servaient de la limitation. Cette remarque est d’une grande importance, et nous comptons (says the writer) donner avec détails la communication de M. Brunet de Presle, qui a eu l’obligeance de nous promettre le relevé complet des textes auxquels il a fait allusion.” M. B. de Presle fulfilled his promise, for in the same volume ‡ is a communication from that gentleman, entitled “Sur la manière de marquer les limites territoriales à l’époque Gallo-Romaine.” He begins by remarking that there are factitious mounds, *monticules*, of earth in France which have been looked upon as tombs, although no traces of sepulture have been found in them, only ashes and fragments of earthen vases. He regrets that he has not the necessary elements to treat the subject with such development as it requires; but refers, however, to passages in the writings of Sículus Flaccus, which read, “Cùm terminos dispo-nerent, ipsos quidem lapides in solidam terram conlocabant; proximè ea loca quibus fossis factis defixuri eos erant, unguento velamini-busque et coronis eos coronabant; in fossis autem quibus posituri

\* *Extraits des Procès Verbaux des Séances de l’Année 1864 de la Société d’Emulation des Vosges*, referred to in vol. 12, N.S. pp. 317, 318, of the *Revue Archéologique*.

† *Bulletin Mensuel de l’Academie des Inscriptions* for June 1867, vol. xiv. N.S. of the *Revue Archéologique*, p. 73; see also *Mémoires de la Société Impériale des Antiquaires de France*, 3rd ser. vol. x.; *Extrait des Procès Verbaux des Séances*, p. 83-85.

‡ Pp. 210, 213.

eos erant sacrificio facto, hostiâque immaculatâ cæsâ, facibus ardentibus in fossâ cooperti sanguinem instillabant, eoque thura et fruges jactabant; favos quoque et vinum, aliaque quibus consuetudo est terminis sacrum fieri, in fossa adjiciebant, consumptisque omnibus dapibus igne, super calentes reliquias lapides conlocabant, atque ita diligenti curâ confirmabant: adjectis etiam quibusdam saxorum fragminibus conlocabant, quo firmiter starent;\* and in another place, "Quibusdam placet et videtur, uti sub omnibus signum invenire oporteat, quod ipsum voluntarium non necessarium est. Si enim essent certæ leges, aut consuetudines, aut observationes, semper simile signum sub omnibus inveniretur; nunc, quoniam voluntarium est, aliquibus terminis nihil subditum est, aliquibus vero aut cineres, aut carbones, aut testas, aut vitrea fracta, aut ossa subsensa, aut calcem, aut gypsum invenimus; quæ res tamen, ut supra diximus, voluntaria est. Carbo autem aut cinis quare iuveniatur, una certa ratio quæ apud antiquos quidem observata est, postea vero neglecta."

On these quotations M. de Presle remarks as follows:—"Cependant, une partie de ces cérémonies dut souvent être négligée, et les sacrifices cessèrent avec le polythéisme; mais l'usage d'enterrer sous la borne qui devait servir de limite, de la cendre, des charbons, des fragments de poteries, ou d'autres matières incorruptibles, qui rappelaient l'ancien usage, et qui servaient de témoins pour distinguer les bornes d'autres pierres, ou pour empêcher quelles ne fussent déplacées, ou cet usage s'est conservé jusqu'à nos jours dans plusieurs parties de la France; les arpenteurs placent sous les bornes des charbons ou des tuiles brisées, dont les fragments peuvent être rapprochés, et servir des témoins." †

\* See *Siculus Flaccus De Condit. Agror.* p. 5. M. De Presle quotes from the edition of Turnebus. Paris 1554.

† It should be observed that the word "témoins" is used by M. de Presle in the technical sense employed by French land surveyors. This sense is thus explained in the Dictionary of Laveaux: "On appelle témoins de petits morceaux de tuile, d'ardoise, &c. qu'on enterre sous les bornes d'un champ d'un héritage afin de connaître dans la suite si ces bornes n'ont point été déplacées; on a trouvé les véritables bornes de ce champ par le moyen des témoins."

A passage from Fastus and Valerius is then given, "Per Gallias et per Africam, Dum per Africam assignaremus, circa Carthaginem in aliquibus locis terminos rariores constituimus, ut inter se habeant pedes II. CCCC. In limitibus autem ubi rariores terminos constituimus, monticellos plantavimus de terra, quos *botuntinos* appellavimus. Et intra ipsos carbones et cineres et testâ tufâ cooperuimus. Trifinium quam maximè quando constituimus cum signis, id est cineribus aut carbonibus, et calce, ibidem construximus, et super toxam monticellum constituimus."\*

In commenting on this extract, M. de Presle observes, "Il est établi par ce passage que les monticules dans lesquels on trouve de la cendre, des charbons, et de la chaux, sont probablement d'anciennes limites. De semblables monticules ont pu servir non seulement à délimiter des héritages mais des territoires, des confins de *pagi*;† et comme à travers les révolutions qui ont passé sur notre pays, les anciennes délimitations civiles, municipales, ou religieuses paraissent avoir peu varié, ainsi qu'on l'a déjà constaté pour de grandes divisions territoriales ceux des nombreux tumuli, dans lesquels on a vraiment cherché les objets qui accompagnent ordinairement les sépultures, pourraient offrir un intérêt d'une autre genre," and concludes by recommending the subject to the "Commission de la Carte des Gaules."

At a meeting of the Society on the 18th December 1867, M. Devais, in calling attention to the village of Montbartier, mentioned in a map of the year 676, which is preserved among the archives of the department (*in Montemberterii quondam*) remarks on the numerous antiquities of interest which have there been discovered, and among other things he refers to "un oppidum gaulois situé à l'extrémité méridionale du village," and that near this there is a large mound evidently constructed by the hands of man, but which cultivation has so injured as to render it difficult to say whether it was raised for funereal or military purposes. To the north of the *oppidum* is another mound, the base of which is defended by a large ditch. This in the map of 676 bears the name of *Vallum Euvaldi*, and belongs to the category of defensive

\* *Var. Auctor. de Limitib. Rei Agrariæ Auctores*, p. 306.

† Lesser divisions of a territory.

mounds, and is nothing more than an advanced work, or, in other words, a detached fort. Discoveries have frequently been made of broken Gaulish pottery, but less ancient than that found in the immediate vicinity. To the east of the *vallum* was a third mound, but it has been destroyed within the last few years, when it was found to contain nothing but large quantities of coals, cinders, and fragments of bricks and pottery. In this M. Devals justly sees an illustration to the passage already quoted from Fastus and Valerius, and proceeds to notice how remarkable it is that at this particular spot there is shown in the chart of 676 a turn, “*detourner à gauche pour descendre au ruisseau de Sandrune,*” (*pervenit usque . . . in Montenbertii quondam usque in Stirpiniago et Vallum Ewaldi usque in media Saldruna,*) which indicates the limits of the possessions given to the Abbaye de Moissac by Niyergius and his wife Irmitrudis, and asks whether this mound could not have been raised at this early period, and served as a boundary to the abbey lands.\* If so, it would indicate that the system described by the old writers was still in full vigour in France at the end of the seventh century.

These are facts which evidently show that the study of liminary monuments is now engaging the attention of antiquaries in France, and, as the early history of the continent is so materially interwoven with that of our own country, added to the illustrative benefit to be derived from a study of the antiquities which are so profusely scattered throughout Germany and Gaul, we may watch with interest the results of further investigations by our foreign neighbours in this most novel though important branch of archæology.

A sepulchre of itself would sometimes be so placed as to mark the boundary line of the possession. In an enumeration of objects so applied in different provinces, which is given by the old writers, we find † “*Sepulchra finalia aut monumenta,*” sarcophaga, orcas, imbrices, laterculos, &c., and throughout the text we have ample evidence to the fact of interments sometimes possessing this signi-

\* Vide *Bulletin de la Société des Antiquaires de France*, 1867, p. 179. 181.

† *Var. Auctor. &c.* p. 267. *Rei Agrariæ Auctores, &c.* 1674.

ficance,\* “Aliquibus locis pro terminis monumenta sepulchrave veteranorum constituimus,” “quoniam sepulchra in extremis finibus facere soliti sunt.”† In some places where pools and ditches indicated natural limits there were signs signifying the intention evidenced by a sepulchre placed upon the marshy bank, “Signa quæ inveniuntur per sepulchra finali causâ diriguntur, plerisque super ripam paludis sacra paganorum inveniuntur.”‡ But, while explaining the circumstance of sepulchres being final, the agrimensors are equally explicit in showing that all were not to be so considered: “Monumenta vero non omnia sunt finalia, nisi ea quæ in extremis finibus occurrunt,” and they make reference to certain signs by which the intention may be proved: thus, “Fines sepulchrosos sive cinerarios sic intelligis, quo vadant rigores inter possessiones, juxta sepulturam sunt buxus, sunt etiam cineres, aut cacabos invenis, aut orcas fractas, aut certè integras. Ut invenias si finalis est sepultura, quæris longe ab ea pedes quinque, aut aratro terram agis, et si inveneris ea signa, finalis est sepultura.”§ This latter quotation appears among fragments of a lost work of the Agrimensor Dolabella; in being handed down (evidently for practical use) such fragments are somewhat corrupted in expression, but their meaning is perfectly evident.

The connection of box trees (*buxus*) with funeral customs has been fully illustrated by discoveries in this country. Among the Roman sepulchral relics at the Bartlow Hills described by John Gage, Esq. F.R.S.¶ leaves were found adhering to the cinerary urns found in the brick bustum, and these were described by Mr. Brown, F.R.S. as belonging to the box, *Buxus sempervirens*; and Professor Henslow records that among Roman remains at Chesterford box leaves lay loose in the soil.¶¶

The presence of pottery near the interment, *aut orcas fractas aut*

\* *Var. Auctor.* §c. p. 254.

† *Siculi Flacci de Condit.* §c. p. 4.

‡ *Ibid.* p. 274.

§ *Ibid.* p. 296.

¶ *Archæologia*, vol. xxviii.

¶¶ Mr. Gage further quotes from Wordsworth's poetical works the fact that in several parts of the North of England, when a funeral takes place, a bason full of sprigs of box-wood is placed at the door of the house from which the coffin is taken up, and each person who attends the funeral ordinarily takes a sprig of the box-wood and throws it into the grave of the

*certe integras*, fully answers to the conditions under which the discovery was made at Moorfields, which, taken with the fact of it being *in situ*, and on the margin of a watercourse or ditch, and thus on a natural terminus,\* gives weight to the idea that it may have been intended as an additional evidence to mark the limit of the land. If this be so, we may imagine it as the family tomb of the proprietor of the soil; the urns all containing bones in addition to those so carefully preserved in the glass vessel, show that more than one individual was entombed. The peculiarity also of the earthen cover would seem to indicate that something was intended by its selection. Terminal marks of this nature were usually above ground; and this, of course, would be a burial below the surface; it may therefore have had some kind of monument or mound of earth raised above it for security and protection. It is here worthy of remark that among the diagrams given in the agrimensorian treatises there is a class of monument figured † as “*Sepultura militaris in finem*,” which possesses a domed covering of the form I have described. To say, however, that this or any other of the interments we have investigated are of the order of *sepulchra finalia* would be idle; to say that they may be so is to suggest a possibility. They doubtless had belonged to the proprietors of the several lands on which they were found, and were not deposited in a public cemetery; but to assign the precise meaning attached to their position requires most accurate observation of the site and circumstances at the time of the discovery. “*Omnia ergo*” (says Siculus Flaccus) “*diligenti curâ exquirenda erunt.*” There is of course evidence both for and against any supposition; and the facts I have ventured to put

deceased. Box-trees are indigenous to the South of England, and in Roman times may have frequently been connected with sepulchral rites. It is noticeable that the cypress, still an emblem of mourning, was placed both by the Greeks and Romans in their tombs, and to these facts we may attribute the origin of that custom which has placed yew-trees and evergreens in the churchyards of our own time.

\* Blomfield Street marks the line of division between the parishes of St. Stephen Coleman Street, and St. Botolph Bishopsgate.

† Hyginus, 212, *Rei Agrariæ Auctores*, &c. See also fig. 275, Lachman's edition of the *Gromatici Veteres*, 2 vols. Berlin, 1848.

forward are but offered as suggestions for further study and reflection, and to indicate a source whence light may be gathered on much that has hitherto been obscure, as well as to point out the importance of minutely observing the smallest matters of detail when such discoveries are made. We know from written history that the systems which have been referred to were carried out in the Italian provinces,\* and there can be few matters of research more valuable or interesting than tracing the extent to which the same plans were adopted in this country. It may be thought questionable as to how far the Italian forms of assignation prevailed in a province so remote as Britain, and consequently that principles familiar enough abroad must in their connection with us be accepted with some hesitation. On the other hand, we may inquire, Why should Britain form an exception to the general plan of conquest? *It was situate at no greater distance from the seat of power than many places where these forms existed. It was no insignificant province; it attracted the personal attention of many of the emperors, several visited it, and others are known to have both lived and died upon its shores. The importance of its trade with other nations, the wealth of its native products, its insular security, and its proximity to the continent, all served to invest this country with influence in the councils of the Imperial city. With the Romans, too, unity of purpose was an essential characteristic. In whatever part of the world we may meet with the traces of their occupation, there is no difficulty in identifying them, they at once speak for themselves as the product of one and the same enterprising genius. "Ubicumque vicit Romanus habitat,"† was said by Seneca; and in applying the knowledge we possess of what was done in Rome we shall the better understand the course pursued, not only in this but other provinces of the empire.*

\* Also in Spain and Portugal, Gaul, Africa, Pannonia, Phrygia, Asia, Dalmatia, Constantinople, &c. Vide Lachman, *Spain and Portugal*, pp. 4, 22, 51, 171; *Gaul*, p. 353; *Africa*, pp. 53, 57, 87, 180, 307, 353; *Pannonia*, pp. 121, 205; *Phrygia*, p. 206; *Asia*, p. 206; *Dalmatia*, p. 240; *Constantinople*, p. 351. See also at p. 268 a rescript of Constantine upon a point of the Agrimensura, addressed "ad universos provinciales."

† Seneca, *Cons. ad Helv.* sect. vii.



The annexed wood-cut represents an object in Mr. Baily's museum, which was also found in the excavations in Blomfield Street. It is of iron, much corroded and encrusted with pebbles, indurated clay, and sand. It measures  $8\frac{1}{2}$  inches long, has what

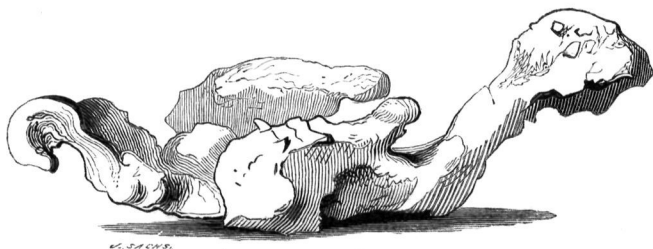


FIG. 1.

may be termed a handle, elevated at a distance of  $3\frac{1}{2}$  inches from the base, the slanting form being due to the effects of time or accident, its original position having been doubtless perpendicular. The other end is terminated by a hook, and the sides are flanked by clips, the form of which, in spite of the encrustation, is distinctly shown in the engraving. Fig. 2 is an object of like



FIG. 2.

character. This was discovered while excavating for the Broad Street Station of the North London Railway in Liverpool Street. It differs somewhat from the preceding example: it measures at its base  $7\frac{1}{4}$  inches long, and its handle in its original position is  $4\frac{3}{4}$  inches high. It also has lateral clips, but four in place of two;

one appears on either side the anterior hook, two were originally in the centre, but one of them is unfortunately missing, having perished by decay.

Fig 3 is of smaller size, but an implement of like construction.

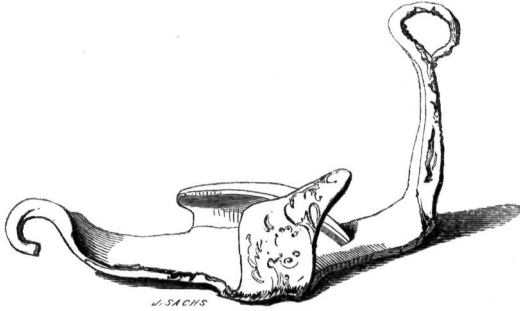


FIG. 3.

It measures but 6 inches on its under surface; its ring-formed handle is  $3\frac{1}{2}$  inches high, and on it also are the two lateral clips, and it has an anterior hook similar to that illustrated above. It was found in the spring of the present year while digging in London Wall, and with Fig. 2 is also preserved in Mr. Baily's collection.\*

These illustrations are representative of a class of objects to which, until of late years, but little attention has been paid, although they must frequently have been met with while excavating Roman sites. Though varying more or less in form and size, they are nevertheless of a uniform character, and are now generally considered by antiquaries to represent "hipposandals" or horseshoes, and to have been fabricated for the use of mules or horses having feet that were tender or diseased, or for temporary employment on moist or boggy soils, and are presumed to have been attached to the hoof by straps or thongs. By some

\* The examples we have figured were exhibited at the evening meeting held on 8th March, 1869. Mr. Baily has others in his museum, and it is curious to note the difference there is in detail, while the general character remains the same. Two of them are engraved in the *Journal of the British Archaeological Association* for March 1867, and are specimens also found at Moorfields.

authors this appropriation has been questioned, and they have been described by some as stirrups, and by others as lamp-stands. To the latter use Mr. Roach Smith, F.S.A., who was, I believe, the first to bring them into notice, at one time thought they could be applied; but he has since found reasons for a different opinion. In his valuable work, the "Illustrations of Roman London," while describing a specimen from his own collection, he writes, "The most reasonable explanation that has been suggested is, that they were used for temporary purposes for the feet of horses or oxen, either in case of disease or in journeys where the roads were particularly bad. Supposing they were so used, they were probably lined with leather or wool, and bound round the hoofs and legs with straps. When Catullus (xvii. 25) speaks of a mule leaving its iron *solea* or shoe in the mud,

In gravi derelinquere cœno,  
Terream ut soleam tenaci in voragine mula,

it is certain he could not have meant a shoe fixed to the foot with nails, but a shoe not permanently bound on; and from the context one apparently used for soft or quaggy land."\*

Among the *débris* of the Roman towns in France and Germany these objects have frequently been discovered. So early as 1758 one is mentioned as found in Switzerland, at Culm, near Avenches, and throughout the writings of foreign antiquaries various references to their discovery occur. Besides recording the discovery by M. Chevreux in 1861 of a hipposandal at Abbaye wood, Canton St. Saens,† the Abbé Cochet mentions that they have been observed at Arques in the Roman establishment of Archelles;‡ others from the soil of Caudebec les Elbeuf (the ancient Uggate), and preserved at Louvriev; and also that analogous examples have been met with at Riviere Thibonville

\* *Illustrations of Roman London*, C. R. Smith, p. 146.

† This specimen, illustrated in the Abbé's work *La Seine Inférieure*, differs from those we have figured in having two studs projecting from its under surface, and in place of the lateral clips, these appendages are carried up in a slanting position from the sides until they unite in a terminating ring of the same character as we have described.

‡ *Tombeau de Childeric; Abbé Cochet*, 1859, p. 152.

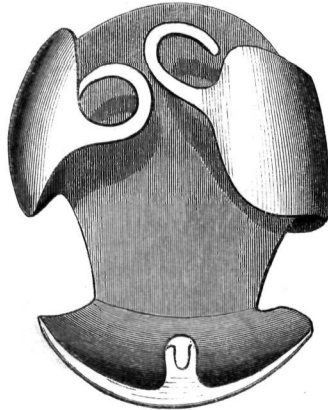
(Eure), at Vieux near Caen (the ancient Arægenus), at Vieil Evreux (Mediolanum), as well as at Chatelet, Dijon, Autun, and other places. The Abbé gives three illustrations for comparison; one described by M. de Widrange of Bar le Duc, and having an aperture in the centre of the plate, also a ring attached to the side clip in the same manner as that in the specimen found at Evreux, which is figured by Mr. Roach Smith in the third volume of his *Collectanea Antiqua*. The second had no rings, but hooked terminations and lateral clips; this M. de Widrange was informed had been discovered attached to the remains of the animal's limb; but the statement being unauthenticated, it was justly questioned by the abbé. The third example differs only in the number of its clips; it is preserved in the museum of Besançon, which is said to possess as many as thirty or more of these interesting but doubtful objects. They have also been met with among the *débris* at the Roman camp at Dalheim and Luxembourg,\* accompanied too by specimens of the horseshoe similar to those in modern use. In excavations at the camp between the years 1851 and 1855 many were observed, and are described as "une nouvelle forme de hipposandale ou hippopodes pathologiques." Among them are specimens resembling those in Mr. Baily's series, as well as that figured by Mr. Roach Smith in his Catalogue of London Antiquities.

In Switzerland they have been found at Granges, Canton de Vaud, and it is mentioned by Abbé Cochet that M. de Troyon had directed his attention to the discovery, among Roman ruins at this place, of four which were said to have been found attached to the feet of a skeleton of either a horse or mule, a statement which, being authenticated by an authority such as M. de Troyon, would seem to settle at once the discussion as to the application of these instruments.

In a private letter recently received from Abbé Cochet, this eminent antiquary favours me with the following extract from the original information received by him from M. de Troyon. After corroborating the general views expressed by the abbé on the subject of "Hipposandals," in his "Tombeau de Childeric," it

\* *Publication de la Société des Monuments, etc. de Luxembourg*, vol. xi.

reads: "Toutefois j'ajouterai, ce qui vous interessa peut-être, que nous avons retrouvé dans les ruines romaines de Granges (Canton de Vaud) un squelette de cheval qui avait encore à chaque pied l'une des *solea*; les deux destinées aux pieds de devant avaient l'anneaux posterieur destiné à la courroie plus relevé et plus plat qu'aux deux fers des pieds de dernière, evidemment pour empêcher que le cheval ne *forgeât*." These facts tally with the description of the shoes found (now placed in the museum at Avenches and Bel Air) which is given by M. Bieler, and quoted at length in the excellent work on "Horse Shoes and Horse Shoeing," recently published by George Fleming, esq. Vet. Surg. R.E., F.R.G.S., &c., to whom I am much indebted for the permission to use the annexed wood-cut, which illustrates the object\* referred to.

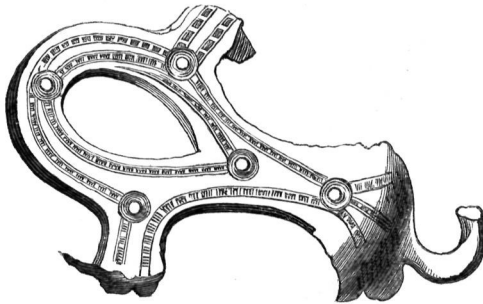


In England, the existence of many specimens is recorded. From Springhead, in Kent, Mr. Fleming engraves two in the collection of Mr. Sylvester. One possesses an oval-shaped sole, with a wide aperture in the centre; its length without the terminating hook is  $5\frac{1}{2}$  inches, and its width between the lateral clips is  $4\frac{1}{2}$  inches. The second is a much larger example, its length within the front and back hooks is  $6\frac{1}{2}$  inches, and the width

\* Mr. Fleming's work abounds with information connected with the *pros* and *cons* of this interesting subject. It is fully illustrated with figures of every variety of the "Hipposandal," and an ingenious classification is given by which they are assorted into three divisions.

between the lateral clips  $4\frac{1}{2}$  inches, though the sole both before and behind is much narrower. These are the most clumsy in their construction of any of the varieties that have been found, and led Mr. Fleming more than any others to question the accuracy of their general application. In a private letter he informs me that in the course of his experiments as to whether they could be adapted to a horse's hoof, he was unable to find a single animal that they would fit, and that with many that he has represented "could they even be adjusted to the hoofs they would inevitably throw the horse down did he attempt to walk or trot in them." The second example described as from Springhead is similar to fig. 2 in Mr. Baily's examples, and a counterpart of one found some years since in the Thames near Westminster, and exhibited by Mr. C. Ainslie at a meeting of the Archæological Institute.\*

In the late Lord Londesborough's collection there was one from Stony Stratford; and a richly ornamented specimen was exhumed

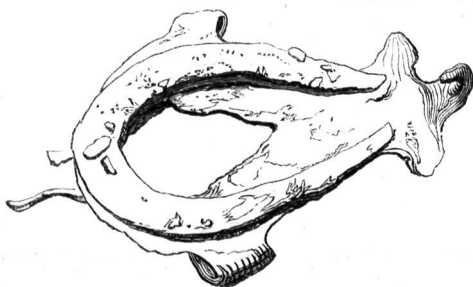


during the rebuilding of Blackwater Bridge at Coggeshall in Essex, in conjunction with Roman remains. "It is decorated with beaded bands and impressed circles wrought with the hammer upon its under surface," and is best represented by the engraving,

\* *Archæological Journal*, vol. xi. p. 416. This object is there described as probably an example of the *Lychnuculus pensilis*, or lamp stand, but the appropriation can hardly be correct; the *Lychnuculus*, so far from being a lamp-stand, was rather for the support of many lamps, and suspended as our chandeliers from the ceiling. Mr. Rich remarks that all the varieties possess this characteristic feature, and he engraves a pendant lamp-stand of marble, in the Villa Borghese, which carried eight lamps at least. Vide *Companion to the Latin Dictionary and Greek Lexicon*, p. 398.

copied from a careful etching by Mr. H. W. King, Hon. Sec. Essex Archæological Society, and published in the first volume of its Transactions.

By the kindness of A. W. Franks, Esq., F.S.A., &c., I have had the pleasure of inspecting several of these objects which are in the British Museum; among those of special interest is one discovered at the Bridge of Reignac (dep. of Indre et Loire); on its under surface are numerous incised lines running in various directions, apparently with some view to ornamentation, yet of utility in rendering the implement less liable to slip when used. A second has but one real lateral clip, the usual two being quite in front, where they are clumsily united to form a projecting hook. The sole is very narrow and much oxydized on the ground surface, and the ordinary hook-like termination at the end is present.\*



There is also an example of great interest from the internal evidence which it appears to me to possess of its application as a horseshoe. It measures  $6\frac{3}{4}$  inches long with a width between the side clips of  $4\frac{3}{4}$  inches. It shows traces of wear, and has an aperture in the centre around which has been placed a strip of iron in form resembling the modern shoe. This has been fastened on to the original in a separate piece, possibly as a means of strengthening the plate, but in the design selected for this purpose there would appear to be something more than a coincidence. The peculiarity is indicated in the illustration executed from a drawing made by Mr. J. P. Emslie† by the permission of Mr. Franks.

\* Figured in Mr. Fleming's work, p. 313.

† To Mr. Emslie we are indebted for the drawings of the various objects figured in these remarks.

With respect to the question as to whether we are correct in considering these curious objects as hipposandals it is difficult even to hazard an opinion, for the subject is of great perplexity. It is truly styled by Mr. Roach Smith "as one of those minor points in archæology so difficult to decide upon without some unquestionable evidence." For many years it was considered that the general testimony of antiquity was to the effect that the ancients did not possess the knowledge or practice of protecting a horse's hoof by nailing thereto a piece of iron; but recent discoveries have clearly indicated that this opinion is erroneous. Horse shoes of modern form have often in London as elsewhere been found among remains unquestionably Roman, and, as we have already seen, sometimes accompanied by these debated objects. In addition to this there is evidence of a powerful character adduced for the first time by Mr. C. Roach Smith, viz. the testimony of sculpture.\*

In the museum of Avignon there is a monument discovered at Vaison which is covered with sculpture in a good style of art. Among the subjects is one representing a travelling scene comprising a four-wheeled vehicle drawn by two mules, and containing no less than four persons exclusive of the driver. Two of them are seated face to face in the inside, and two back to back on the roof. The passengers upon the top of the vehicle are all provided with hoods which fall down upon the back, and the driver wears the Gaulish *braccæ* or trousers. With some further descriptive remarks on so interesting a picture of the equipment and arrangement of a travelling party in Roman Gaul, one not to be found in all probability elsewhere, Mr. Smith describes "the indications of the nails to be so decidedly marked on the feet of the mules as to leave no doubt that the artist intended to show that they were shod, and that we may conclude that the shoeing of horses as well as very many more inventions of the useful arts commonly supposed of comparatively modern origin are really of remote antiquity." In addition, however, to the nailed shoe, there is undoubted evidence of the adaptation under certain conditions of moveable shoes, such as could

\* *Collectanea Antiqua*, vol. vi.



be taken off and replaced with ease when necessity required.\* Vegetius speaks of the *solea spartea* as a covering for the hoof; this was made by plating together sprigs of the Spanish broom (*Spartium Junceum*) and was for the purpose of protecting the feet of cattle and beasts of burden when tender or diseased. A contrivance of this kind exists in modern times; it is said by Mr. Rich still to be in use in Japan, where the inhabitants make a small basket to the shape of the animal's foot, on to which it is bound by a strap round the fetlock. Then there is the iron shoe, the *solea ferrea* already referred to by Mr. Smith in his quotation from Catullus, and described by Mr. Bracy Clark in connection with a passage from Vegetius † which refers to a sock of leather or similar material which enveloped the foot, and beneath which was a stouter leathern sole, pad, or *lemniscus*, and sometimes under this an iron shoe or *glans*, and Mr. Clark suggests the possibility of this referring to an iron plate being connected with the sock, and that probably on some occasion it was by accident or intention affixed to the hoof in place of the *lemniscus*, and so became the progenitor of the modern shoe. We have evidence also of the moveable nature of the shoes in the jocular story connected with Vespasian and his mule-driver.‡ That emperor, on one of his journeys, suspecting the driver who had alighted on the pretence of shoeing his mules—*mulas calceare*—had only done so in order to have the opportunity for allowing a person they met, and who was engaged in a law-suit, to speak to him, is reported to have

\* Montfaucon, *Antiquité Expliquée*, vol. iv. pt. 1, p. 79. "Xenophon dans son livre sur les chevaux et sur la cavalerie ne parle point de l'usage de ferrer les chevaux; il apprend seulement la manière de leur durcir la corne des pieds, ce qui sembleroit marquer qu'ils n'etoient point ferrés; il dit, au livre quatrième de l'expédition de Cyrus le Jeune, qu'une nation dont les chevaux estoient fort petits, leur lioit les pieds dans des sacs de peur qu'ils n'enfoncassent dans la neige jusqu'au ventre, on a pourtant des preuves que les anciens ferroient les chevaux. Homere et Appien le disent, mais il paroît que la coutume n'en etoit pas generale."

† *On the knowledge of the Ancients respecting the Art of Shoeing the Horse*, B. Clark, 1831. "Pedes quos sanos habet glante ferreo vel si defuerit spartea calceabis, cui lemniscos subjicies et additâ fasciolâ diligentissimè colligabis, et suppositiciam facies parti illi quæ misera est ut planas ungulas possit ponere." Veget. lib. iii. c. 18.

‡ Suetonius, *Vespasian*, c. 23. Bohn's translation.

asked, "how much he got for shoeing his mules," and insisted on having a share of the profit. The fact too of Nero\* never travelling with less than a thousand baggage-carts and the mules all shod with silver—*solea argentea*—or those of his wife Poppæa, which were shod with gold—*solea ex auro*,† would imply that the said shoes were but plates of gold or silver instead of iron, and employed for the temporary purpose only.

Mr. T. Milbourn, *Hon. Secretary*, in suggesting that some of these objects may have served as temporary shoes for cattle, calls my attention to the circumstance that to the present day oxen are shod with small plates or tips of iron which are affixed by nails to the animal's foot. Small pieces of iron were found at Pompeii, which are presumed to have served as shoes for cattle, and in the Middle Ages oxen are said to have carried panniers, and were in common with cows shod in accordance with a then prevailing method. Certainly some of these sandals would seem more adapted to the measured tread of the ox than to the horse; with the former the limbs are far apart, whereas with the latter the distance between the hoofs is comparatively small, and at a trotting pace the lateral clips of *some* of the "hipposandals" would inevitably strike one against the other, and injure the corona and fetlock of the horse.

There is, however, so great a variety in design and form, that the mistake has possibly been in assigning all objects analogous in character to one and the same use. Many doubtless have served as horseshoes, while others may have been applied to other purposes. In the form of sandal attached to the skeleton referred to by M. Troyon, there is nothing against such an application; and in the specimens which possess the central aperture there would seem to be an intermediate form between the plain iron plate and the modern shoe. To the present day in Holland they still have such sandals, viz. a long flat iron plate much in the shape of the ordinary shoe, and affixed to the animal's limb by leathern thongs or straps; and even of late years there have among London tradesmen been attempts made to introduce a moveable horseshoe of this character. History and tradition therefore tell us, that shoes with nails and shoes without were

\* *Idem, Nero*, c. 30.

† Pliny, *Hist. Mundi*, lib. xxxiii. c. 11.

simultaneously used; and if the objects we have attempted to describe, clumsy as they are, do not represent the latter, it is singular that we should find no example of anything else that would apply to the same use. Mr. Fleming (and to his book I would refer all interested in this subject) suggests that they may have been employed as skids or drags, and represent the *sufflamen* of the ancient writers, and adduces several ingenious reasons in support of his supposition; at the same time he admits that there are many of them to which such application would be difficult; certainly those that we have figured could not be so assigned, and those that are ornamented, as the one from Essex, would be alike unsuitable. To some extent he is strengthened in his opinion by no less an authority than M. Megnin, Veterinary Surgeon to the 3rd Regiment of French Lancers, and one who has given some attention to this subject. This author formerly considered these implements as really intended for horses' feet, but is now inclined to think with Mr. Fleming that many of them are examples of the *sabot* or *enrayeur*—a skid or drag.\* He describes, however, one in his possession as a veritable “hipposandal,” and which possesses rings, lateral clips, and has the under surface slashed or grooved to prevent sliding. It was found under three metres of alluvial deposit on a towing path by the banks of the Loire, and at a site dating from the Gallo-Roman period. M. Megnin remarks that historians have shown that at this time transports by water were active on the large rivers of Gaul, and that it is not improbable that the market horses, whose feet would become injured by the frequent passage through the water, were often shod with irons, temporarily affixed (*au fers à ligature*), and that this, while not a pathological shoe, may have been employed for such a purpose. For some such temporary use I can but think they were intended, or if not so considered, or as protections for the tender or diseased hoofs of the horse, ox, or mule, we must, I fear, admit the perplexing nature of the inquiry, and await further discoveries.

\* My thanks are due to Mr. Fleming for the particulars of this discovery, received by him from M. Megnin since the publication of his work.