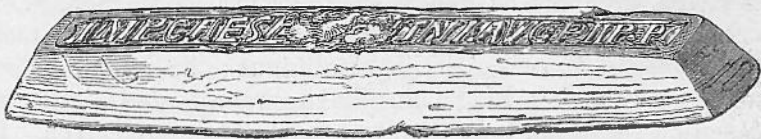


NOTICES OF ROMAN PIGS OF LEAD FOUND AT BRISTOL, AND OF METALLURGICAL RELICS IN CORNWALL, IN OTHER PARTS OF ENGLAND AND WALES, AND ALSO ON THE CONTINENT.

In a former volume of this Journal an inventory was given of the relics of metallurgy in Roman times,<sup>1</sup> the *massæ plumbi*, or pigs of lead, that from time to time have been found in this country, and of which the greater part are preserved at the British Museum. Towards the close of the autumn of 1865, two objects of this description were found at Bristol; of these, one, through the like liberality that we had formerly the satisfaction to record on a similar occasion, has been added to the Series in the National Collection.

We are indebted for the following particulars to the Rev. Canon Scarth, who received timely information of the discovery from Mr. John Reynolds, a member of the Institute resident at Bristol. It occurred in making excavations in Wade Street on the eastern side of the city; the precise spot being the original bank of the River Frome, which has there been confined in later times to a narrower channel than that in which the stream formerly flowed in its winding



Roman Pig of Lead found at Bristol. British Museum.

course towards the Avon. One of the pigs was taken to the shot manufactory of Messrs. Sheldon, Bush, and Co. at Bristol, the firm by which, in 1853, a similar relic, found at Blagdon, the earliest of the series hitherto known, had been preserved.<sup>2</sup> The second passed into the possession of Mr. Edkins, whose collection comprises valuable antiquities of local interest. The two relics bear the same inscription,

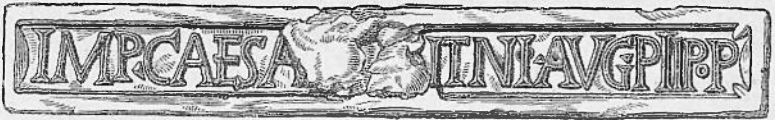
<sup>1</sup> Arch. Journ. vol. xvi. p. 22.

<sup>2</sup> Ibid., vol. xi. p. 278; vol. xvi. p. 23.

some letters of the name of the Emperor being obliterated, in the same part of the surface in each instance respectively ; this defect has probably been occasioned by an injury to the mould which, as Mr. Scarth suggests, may have been of clay. On the pig, however, last noticed, he remarks that there is the appearance as if a thin metal plate had been laid over the Emperor's name.

The *massa plumbi* now, through the liberality of Mr. Arthur Bush, added to the collection in the British Museum, measures 21 in. by 5 in. ; the inscribed face, namely, that which represents the bottom of the mould, 19 in. by  $2\frac{3}{4}$  in. The weight is 76 lb. ; the weight of the second pig, in possession of Mr. Edkins, is 89 lb. The inscription, as shewn in the accompanying woodcut, may be thus read, the damaged letters being supplied :—

IMP· CAES· A[NTON]INI·AVG·PII P·P·



Some question, it must be observed, has arisen in regard to the Emperor to whose reign these metallurgical relics lately found should be assigned. Marcus Aurelius having, A.D. 161, succeeded Antoninus Pius, by whom he had been adopted, took the names of Marcus Aurelius Antoninus ; he is styled also Pius, as well as Pater Patriæ. Caracalla, when created Cæsar by his father Severus, A.D. 196, likewise took the names of Marcus Aurelius Antoninus ; he is styled Pius and Pater Patriæ. Elagabalus, having represented himself as a son of Caracalla, took the same names as above given. It seems, however, most probable that the Emperor whose name is found on these relics is Antoninus Pius, successor to Hadrian, by whom he was adopted in A.D. 138, when the Senate conferred on him the title of Pius. In A.D. 139 he took the title of Pater Patriæ, which occurs on the pigs of metal under consideration, and he died in A.D. 161. Mr. Scarth is of opinion that they should be assigned to the reign of that Emperor, and the learned writer on Roman Epigraphy, Dr. McCaul, of University College, Toronto, concurs in that conclusion.

No *massa plumbi* of that period had previously occurred ; the praiseworthy liberality thus for a second time shown by Mr. Arthur Bush in enabling the Institute to contribute such a relic to the National Collection cannot fail to be cordially appreciated. It may deserve notice that the weight is considerably less than that of many examples heretofore discovered ; the weight of the pig found near Blagdon, Somerset, and brought before the Institute in 1863, is 163 lb. ; that of a pig bearing the name of Hadrian, found at Bath in 1852, and now in the Museum of the Literary Institution there, is 195 lb.<sup>3</sup>

It is with pleasure that I take occasion to advert to the researches of our friendly trans-Atlantic coadjutor, Dr. McCaul, in the neglected field of Roman Epigraphy, and to the critical observations given in his "Britanno-Roman Inscriptions."<sup>4</sup>

In the Inventory formerly published in this Journal six pigs of lead bearing the name of Hadrian were described, of which four had been found in Shropshire ; of these, one, brought to light in draining in the parish of Snead, in May, 1851, is now in the Museum of that spirited promoter of archæological science, Mr. Joseph Mayer, F.S.A. The length of that specimen was stated to be a little more than 2 ft., and the weight 190 lb. I find mention of another as found in the same district. In Bagshaw's "History of Shropshire," published in that year, p. 678, it is stated, under Minsterley, that "in 1851 a Roman pig of lead was found by workmen in sinking through a slag-heap of smeltings ; on this pig was the following inscription in raised characters—IMP · HADRIANI · AVG. The dimensions are stated to be, length 20 in., girth 20 in., weight 173 lb."<sup>5</sup>

I may here take occasion to append a few notices of some

<sup>3</sup> Arch. Journ. vol. xvi. p. 34.

<sup>4</sup> First published in the Canadian Journal, and reproduced in 1863 in one vol. 8vo. London : Longmans. The valuable notes on Pigs of Lead, pp. 32-35, claim particular notice, and I beg to acknowledge my obligation to the author's courteous criticism in pointing out some inadvertent errors in the Inventory given in this Journal, vol. xvi. p. 22, et seq.

<sup>5</sup> Bagshaw's History, Gazetteer, &c., of Shropshire ; Sheffield, 1851, p. 678. From

the coincidence of date, and the inscription I had been tempted to suspect that this pig might be the same as that above noticed as found in 1851 at the Roveries, near Snead. That place is however distant ten miles or upwards from Minsterley, which is situated about nine miles S.W. of Shrewsbury. The dimensions and weight, however, do not correspond ; they differ likewise from those of the pig found about 1776 at Minsterley. Arch. Journ. vol. xvi. p. 32.

other mediæval relics of the same class as those that have been described. In the British Museum there is a portion of a block or mass of lead found in the Thames, and bearing two stamps; one of these, which is perfect, is described by Mr. Franks as a merchant's mark composed of two circles, a star and the letters *io*, the imperfect stamp is a crowned H. From the form of the letters this object may be of the reign of Henry VI.<sup>6</sup>

In the Museum at Caernarvon there is an oval cake of lead, measuring  $20\frac{1}{2}$  in. in length by  $7\frac{1}{2}$  in. in breadth; the lower side is convex, the melted metal having been poured into what may be familiarly described as a boat-shaped mould; the thickness at mid-length is about 3 in. It was found at Amlwch on the north coast of Anglesea, near the rich mineral district of the Parys Mountain, chiefly noted for its copper mines, which were probably worked, as Pennant observes, in Roman times; lead containing a portion of silver, and zinc are also there obtained.<sup>7</sup>

I am not aware that any block or cake of lead has been noticed as found in the great source of mineral wealth of Britain in early times, namely, in Cornwall, where, however, that metal, comparatively less abundant than tin and copper, is by no means deficient. A singular image of lead, with slight admixture of other metal, was found on Bodwen Moor, about 1850, as related in this Journal.<sup>8</sup> This mysterious and grotesque object was brought before the Institute in 1862, through the Right Hon. Sir Edmund Head, Bart. It was stated by Mr. Agar Robartes, in whose possession it remains, that it was at a considerable depth near one of the ancient sites of metallurgical operations, the so-called "Jews' Houses." This figure measures about 6 inches in height; it seems to represent a regal figure, seated, but the design is very enigmatical. On the breast are impressed, or cut, three Hebrew letters, Nun, Resh, and Shin; on the left side

<sup>6</sup> Proceedings Soc. Ant., second series, vol. ii., p. 88.

<sup>7</sup> Pennant, *Tour in Wales*, vol. ii., p. 265. It is there suggested that the ore may have been sent to be smelted at Caerhen, Caernarvonshire, where the copper cake inscribed *SOCRO ROME* was found. Pennant, *ut supra*, vol. i., p. 72. A round cake of copper was likewise found at Llanvaerthlle, in Anglesea, a few miles from Amlwch. Its weight was

50lb.; it bore a mark described by Pennant as resembling an L. I noticed in the Caernarvon Museum a cake of copper, diam. 12 inches, stated to have been found near Gwyerdy, in Anglesea; its lower surface is flat, not convex, as in other ancient cakes of metal, for instance, those of tin described in this memoir as found in the Thames.

<sup>8</sup> Arch. Journ. vol. xix. p. 172.

there is a character too indistinct to be identified, and upon the right the Hebrew Mem. The work is rude, but not archaic; it was examined with critical care by a learned Hebraist, Mr. Zedner, but no explanation has been offered, even by Dr. Barham and the assembled *savans* at the Truro Congress in 1862. The coincidence, that a relic bearing Hebrew characters should be found in a so-called "Jews' House," is doubtless to be regarded with suspicion, especially as imagery was repugnant to the faith and usages of the Israelites. The conjecture that such a figure might have been fashioned for some necromantic purpose, in the dark practices of Mediæval times, in which Hebraisms were largely mixed up, seems to partake of the solution—"ignotum per ignotos." I believe that no relic has been disinterred in Cornwall that can be connected with the traditions of Israelitish speculations in that county.

I formerly mentioned a few *massæ plumbi* discovered on the Continent, at Châlons-sur-Saone, Vieil Evreux, Lillebonne, and at Carthagera in Spain.<sup>9</sup> In a subsequent tour in the South of France, my attention was called by M. Deloye, *Conservateur* of the Museum at Avignon, to a *saumon de plomb* in that collection. This object, in form resembling the pigs found in England, is of smaller size; it bears the inscription *SEGVSLIATIC*. The particulars communicated by M. Deloye have been stated in this Journal;<sup>1</sup> it will suffice here to advert to the discovery, which occurred in 1850, in a district known as le Forez, in the department of the Loire. No lead mines exist in the neighbourhood; the ponderous mass may have been deposited whilst in course of conveyance by the ancient line of communication, the *Via Domitiana*, in proximity to which it lay. It has been suggested that it was the produce of mines in the dis-

<sup>9</sup> Arch. Journ., vol. xvi. p. 240, references are there given to notices of pigs of lead found on the continent. See especially a memoir by the Abbé Cochet, "sur le commerce et l'industrie du plomb dans la Gaule et la Grande Bretagne à l'époque Romaine;" *Revue Archeol.*, Dec., 1856, p. 548; and Mr. James Yates' Memoir on Mining Operations in Britain, *Proceedings of the Somerset Arch. Soc.*, vol. viii. p. 17. The pig found at Lillebonne in 1840 is noticed by Mr. Roach Smith, *Coll. Ant.*, vol. iii. p. 87. I am indebted to him for

information that he regards it as belonging to the time of Severus; he proposes the following reading of the imperfect inscription—[SEV · PERTI]NACIS · AVG · P · A. This "*lingot de plomb*" is mentioned also by the Abbé Cochet, in his *Normandie Souterraine*, p. 120.

<sup>1</sup> Vol. xvii. p. 257. See also a memoir by M. Auguste Bernard, entitled, "Description du pays des Segusiaves;" Paris, 1858, in which particular notice is taken of the *saumon* now to be seen at Avignon.

trict formerly occupied by the *Segusiavi*, as indicated by the inscription above noticed.

In the Museum at the Public Library at Basle, as I am informed by Mr. Franks, there are two leaden pigs bearing the inscriptions SOCIETAT — S · T · LVC · RETI. The section of these *massæ* is semi-cylindrical; the ends are cut off vertically, not obliquely as in the pigs found in England; the length is about 15 inches. A detailed notice of these relics will be found at the close of this memoir. Similar semi-cylindrical blocks of lead, before noticed, have been found at Carthagenæ; a specimen may be seen in the British Museum, and another in the Museum of Practical Geology.

In the enumeration of metallurgical relics given formerly in this Journal, I described a cake, supposed to be of lead, found in the Thames near Battersea Bridge.<sup>2</sup> This object, of which I received information from Mr. Franks, is now in the British Museum; it is of irregular oval form, 7 in. by 4 in. On the upper side there are three stamps, figured in the descriptions above cited. Two of them are alike, being oblong, and exhibiting the letters SYAGR. The R is reversed, and may be a monogram for RI. The other stamp is circular; in the centre is the Christian monogram composed of X P, around which are the letters SPES · · S · ·. This stamp is not unlike a coin-die in execution, and it is attributed by numismatists to the fourth century: it has somewhat of the appearance of an official seal, and Mr. Franks has suggested that the oblong stamp may refer to the distinguished individual Afranius Syagrius, secretary (*notarius*) to the Emperor Valentinian in 369, and consul in 382.<sup>3</sup> This cake of metal, which weighs nearly 44 ounces, has subsequently been analysed, and proves to be an alloy of about four parts of tin to one of lead. Mr. Franks obtained subsequently another oval-shaped cake, found likewise in the Thames near Battersea; it was exhibited by him at one of the meetings of the Institute in 1862. It is of rather larger size than that already noticed; it measures  $8\frac{1}{2}$  in. by  $4\frac{1}{2}$  in., and weighs  $110\frac{3}{4}$  ounces. This

<sup>2</sup> Arch. Journ. vol. xvi. p. 38; Proceedings, Soc. Antiqu. of London, vol. ii. second series, pp. 87, 235.

<sup>3</sup> Another Syagrius, Mr. Franks observes, grandson of the *Notarius*, attained almost regal power in Gaul, and was de-

feated by Clovis at Soissons in 436. The style of the circular stamp above described accords better with the times of Valentinian. This cake of metal has been described in this Journal, vol. xxi. p. 169.

cake has likewise impressions of stamps on its upper surface; two of these are rectangular, and evidently from the same stamp; unfortunately the two impressions overlap, and the letters are, in consequence, to be decyphered with difficulty. On careful examination Mr. Franks succeeded in forming a restoration, as here figured, the portions that are illegible in one of the overlapping stamps being supplied by the other; with his wonted sagacity our friend has thus re-established satisfactorily the name SYAGRIUS, occurring likewise, according to his explanation, upon the cake before described. It will be noticed that on this second lump of metal the G and the R are, as on the former, both reversed. (See woodcut, orig. size.) The characters are rather more rude than in the other instance. The two other stamps are repetitions of a circular seal or brand, with the Christian monogram X P (Chi and Rho;) in the spaces seem to be rude indications of Alpha and Omega.



Mr. Franks observes that the rarity of any Christian relics of the Roman period in Britain adds greatly to the interest of these metallurgical specimens. With the exception of the tessellated pavement at Frampton, Dorset, published by Lysons in the *Reliquiæ*, and of a silver cup found at Corbridge near the Roman Wall, I am not aware that the Christian monogram has been found on any Roman monuments or relics in this country. It is not easy to suggest for what purpose such rude lumps of metal were stamped. The oblong stamp on the smaller cake resembles those on certain leaden seals of the Roman period found at Brough, Westmoreland (*Verteræ*), of which a considerable collection was submitted to the Institute, through the Rev. Canon Scarth, by the kindness of Miss Hill, of Appleby.<sup>4</sup> The cakes may there-

<sup>4</sup> Arch. Journ. vol. xx. p. 181. Several of these seals are figured in Mr. Roach Smith's Coll. Ant., vol. iii. pl. 33, p. 197; vol. vi. pl. 16, 17, p. 117; see also Pro-

ceedings Soc. Ant. Lond., first series, vol. iii. p. 222; and a memoir on the Roman station at Brough, by Mr. H. Ecroyd Smith, Trans. Hist. Soc. Lancashire, 1866.

fore, as Mr. Franks observes, have been the property of some officer employed in attaching seals to documents or merchandise, who may have marked with his official seals the supply of metal with which he was furnished for that purpose.

It has been stated that the metal of which the cake first found at Battersea is composed was considered to be lead. This proved to have been an error; the metal of both cakes has been analysed by Mr. C. Tookey, of the Museum of Practical Geology. The following is the result:—

No. 1.		No. 2.
Tin . . . .	79.50	Tin . . . .
Lead . . . .	20.80	Lead . . . .
	100.30	100

The first, the smaller cake, it will be seen, contained rather more lead than that last found. The tin showed indications of a small quantity of copper.<sup>5</sup>

To the kindness of Mr. J. T. Blight, of Penzance, a zealous investigator of the remains of all periods in his county, from rude dwellings of a very ancient race, such as the constructions at Chysauster that he has described in this *Journal*,<sup>6</sup> to the elaborate examples of Cornish church architecture, I am indebted for the following account of a singular inscribed block of Tin preserved in the Museum at Penzance. I acknowledge also with pleasure the friendly interest in my researches that he has shown in presenting the accompanying woodcut.

This relic, which seems to appertain to a much more recent period than those hitherto noticed, may doubtless be of considerable antiquity, and its interest is increased by the fact that it was found in one of those mysterious smelting-places of the West, the so-called Jews' Houses, which some have been disposed to assign to a very remote age. The discovery of the block of tin, of which, by Mr. Blight's kind courtesy, a representation is now for the first time given, has been recorded by the Rev. C. V. Le Grice, in 1846, in

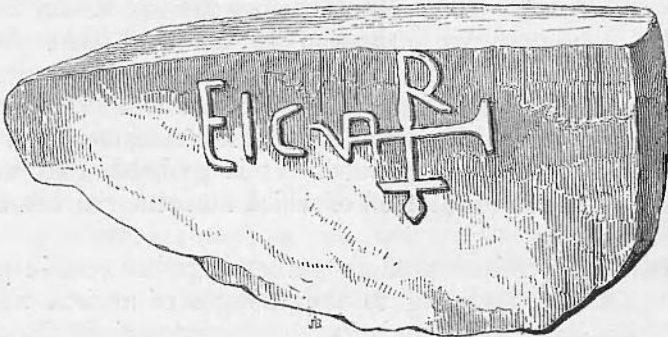
<sup>5</sup> Proceedings Soc. Ant., second series, vol. iii. p. 236.

<sup>6</sup> Arch. Journ., vol. xviii. p. 39. See also Mr. Blight's Memoirs on Chambers at Boscawell, and other remains, Journ. Roy. Inst. Cornwall, vol. i. No. 2, p. 7, and

on Castallack Round, vol. ii., p. 66, Oct., 1865; and his valuable notices of early Cornish Antiquities appended to his "Churches of West Cornwall," J. H. Parker, Oxford and London, 1865.



the Transactions of the Royal Geological Society of Cornwall. He remarked truly, that why the smelting-places were called "Jews' Houses" it is not easy to conjecture, unless it were because the Tin Mines and the Tin Trade, at the earliest period of their authentic History, were in the hands of the Jews. It was therefore supposed that the Jews were chiefly engaged in the metallurgical operations of still earlier times in Cornwall. The remains of several Jews' Houses have been discovered, generally very near ancient stream-works, or vestiges of the earliest mines, of which the works were all open to the sun. All that is usually seen is a narrow, shallow pit, with a small quantity of charcoal ashes at the bottom; frequently also a piece of tin mixed with earth or sand, often vitrified. According to tradition the earliest mode of smelting tin was a most simple process; a small excavation was made; sticks were piled together and the interstices filled with the ore; the pile was set on fire and the smelted metal flowed to the bottom.



Block of Tin, found at Trereife, Cornwall. Penzance Museum.

The smelting-place found at Trereife, in the parish of Madron near Penzance, was, however, of somewhat different character; in the middle of a high bank of compact clay a space was brought to light in form of an inverted cone, about 3 ft. wide at top, and 3 ft. high; at the bottom there was a flat stone about a foot in diameter, with small stones set round its edge; on this stone lay some unctuous ashes. The sides of the cone or furnace were of hard clay. On one side of the bank there was a small ravine by which a blast of air was conveyed, possibly by some kind of bellows, and

through which the molten metal was discharged. This conical furnace was full of earth-rubbish, and upon this was found the block of tin, weighing 26 lb.; it measures  $16\frac{1}{4}$  in. by 8 in.; the thickness at the top is 2 in. It could not have been smelted where it was found, but was probably deposited there with the intention of being removed subsequently. On examination of the block it is evident that it had been cast in a mould; on one side there are several letters in relief, hitherto unexplained, with a cruciform device, somewhat resembling the mediæval merchants' marks.<sup>7</sup>

Mr. Le Grice notices another block of tin found in the centre of a barrow near Lanyon, in Madron, about five miles from Penzance. It is not stated where this relic is now to be found. Also one found in the parish of Gwinear, near the east side of St. Ives Bay and the rich Herland mines. It weighed 34 lb. A third, of small size, weighing only 6lb., was brought to light in a stream-work at St. Just. Mr. Michell mentions two blocks found in a mine near St. Austell, each of them weighing nearly 26lb.<sup>8</sup> Lastly, I may invite attention to an oval cake found at Chapel Porth in the parish of St. Agnes, and now in the Museum of Practical Geology in London. The deposit on which it lay had been washed by the "streamers" for the oxide of tin that it contained. It is probable that many others have been disinterred of which no memorial has been preserved.

I have thus endeavoured to gather together certain scattered particulars relating to the vestiges of ancient metallurgy that have come under my observation since the compilation of my former Inventory in 1859. I would refer any of our readers who may take interest in the subject to the observations by the learned President of University College, Toronto, Dr. McCaul,<sup>9</sup> who has devoted special attention to the elucidation of the difficult section of Roman Epigraphy presented by the relics under consideration. His remarks

<sup>7</sup> These particulars are extracted by Mr. Blight's obliging assistance from a memoir in the Transactions Roy. Geol. Soc. of Cornwall, vol. vi., 1846. Mr. R. Stuart Poole in a memoir on the Phœnicians and their Trade with Britain, notices these letters as "a Roman inscription and monogram." With all

deference to so high an authority, I must hesitate to accept the inscription as of so early a date. See Journal Roy. Inst. Cornw., Oct. 1865.

<sup>8</sup> Manual of Mineralogy, p. 75.

<sup>9</sup> Britanno-Roman Inscriptions, with Critical Notes; London: Longman, 1863, p. 32-55.

on the probability that some of the leaden *massæ* may have been specially prepared for transmission to Rome, with a view to their display in some imperial triumph, claim consideration. He points out that there were apparently three formulæ of construction used in the inscriptions, namely, the nominative, indicating, as Dr. McCaul supposes, that the object was taken as spoil; the genitive, denoting that the metal was the property of the emperors respectively, either as the produce of mines worked for their benefit, or, rather, as part of the imperial tribute; and the ablative, indicating the time when the metal may have been smelted.

The great interest that attaches itself to every fact connected with the production and export of Tin, has made me desirous to bring together all discoveries that may throw light on that obscure chapter of ancient metallurgy in Britain. The most remarkable, doubtless, of those discoveries is the block in form of a double galley, as has been conjectured, dredged up at the entrance of Falmouth Harbour, and figured formerly in this Journal.<sup>1</sup> Sir Henry James, to whom archæologists are so largely indebted for his reproductions of Domesday and of ancient documents, has pointed out the bearing of that discovery on the vexed question of the locality of the Ictis of Diodorus. He confidently places it at St. Michael's Mount.<sup>2</sup> The bifurcate block of tin is explained by Sir Henry as conformable to the type indicated by Diodorus, "the astragalus, or knuckle-bone,"<sup>3</sup> to which he assures us, on the authority of Professor Owen, that the peculiar form is assimilated. It is natural, he observes, to inquire why this form was selected. "We are told that the traders resorting to Ictis there bought the tin from the natives and carried it to Gaul, over which it was transported on horseback in about thirty days; it was, therefore, necessary that the blocks should be cast in such a form, and be of such a weight, as to be conveniently carried both in boats for transport to Gaul, and then on

<sup>1</sup> Arch. Journ., vol. xvi. p. 39.

<sup>2</sup> Note on the Block of Tin dredged up in Falmouth Harbour; by Col. Sir Henry James, R.E., Director of the Ordnance Survey. London: E. Stanford, Charing Cross, 1863.

<sup>3</sup> Or rather the huckle-bone, the pastern, or *talus*, of the heel, used by the ancients in games of chance instead of dice. In architecture as used by Vitru-

vius the astragal seems to have been a kind of ogive; it is commonly taken to be a moulding of a semicircular section, and thus the leaden pigs found at Carthagena, and which are semi-cylindrical in form, seem to have been regarded as types of the astragali of Diodorus. See Mr. Yates' Memoir on Mining Operations, Trans. Somerset Arch. Soc. 1853, p. 5.

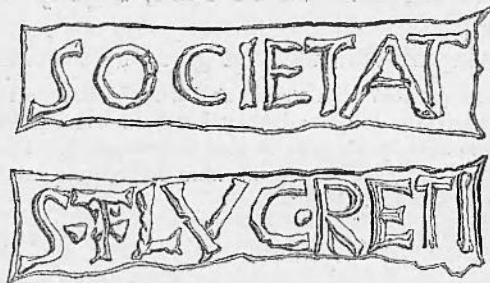
horseback for the journey overland : and it is impossible to look at this block of tin without being struck with the admirable adaptation of the form and weight for this double purpose, and also for the purpose of being easily carried by hand by two men, or slung for lifting it either into or from a boat, or on and off a horse." The diagrams that accompany Sir Henry's memoir fully support the conclusions thus ingeniously suggested. The bifurcate ends of the astragal seem well suited to facilitate transport like a hand-barrow, to use a homely illustration ; its general form would fit the curved bottom of the boat, the ribs of which coming up through the divided ends of the metal block, would prevent any shifting of the heavy cargo in a rolling sea, and, when disembarked in Gaul, a pair of these astragali would be precisely the proper weight for a horse, when adjusted on either side of a pack-saddle, by a simple contrivance for which the peculiar shape seems, as Sir Henry has shown, perfectly suited.

In connection with the important questions that are associated with these vestiges of the early occupants of the British Islands and of their industrial relations with distant nations, I may in conclusion refer to a memoir, before cited, on the Phœnicians and their trade with Britain, communicated to the Royal Institution of Cornwall by Mr. Stuart Poole. He has invited notice to the remarkable coincidence between the weights of certain blocks of tin found in Cornwall, including the "astragalus" last noticed, as compared with the ancient standard designated the later Æginetan or Commercial Attic. It may be asked, how it should occur that we find a Greek, not a Phœnician, system of weight—the Phœnicians, however, as Mr. Poole observes, would use the standard most useful in the markets of the Mediterranean, and the Commercial Attic was this for at least four centuries before the Christian era. If it can be demonstrated, by aid of such facts as I have sought to collect, that these blocks of metal were adjusted to a Greek system of weight, in a remote and comparatively uncivilised country, it is obvious, as Mr. Poole truly says, that we have an additional reason for supposing that the story of Phœnician trade with Britain is true.<sup>4</sup>

<sup>4</sup> Journal of the Royal Institution of Cornwall ; Oct. 1865, pp. 1-10.

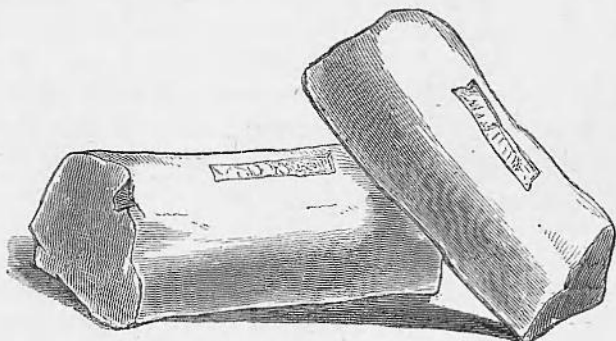
SUPPLEMENTARY NOTE ON A "MASSA" OR PIG OF LEAD  
AT BASLE.

WHILST the foregoing notices were in the printer's hands I have received, through the wonted kindness of our friend Dr. Keller, representations of the metallic *massæ* that exist in the Museum at Basle, as previously stated. It appears that these relics, here figured, had originally formed one pig



Inscriptions on a leaden pig found at Basle.

of lead that may have measured about 30 inches in length. It is, however, uncertain whether the block had been broken previously to the discovery, which occurred, Nov. 4, 1653,



Fragments of a leaden pig (Bleyklumpen) found at Basle.

in the garden of the convent of Klingenthal, in Little Basle, beyond the bridge over the Rhine. It has been noticed by Wagner, Bruckner, and several later writers;<sup>1</sup> more fully,

<sup>1</sup> Mommsen, *Inscr. Confœd. Helvet. Lat., Mitth. Soc. Ant. Zurich*, vol. x. p. 77, No. 10; 1854. See also Wagner, *Mercurius Helveticus*, p. 45, cd. II.,

1688; the unpublished *Thesaurus Inscr. Ant.*, by Remigius Fesch, MS. in *Publ. Libr. Basle*; Bruckner, *Beschr. Hist. Merkwurd. der Landschaft Basel*, p. 2891.

however, by Mommsen, in his valuable collection of the Roman Inscriptions of Switzerland. That learned palæographer suggests that the two stamps, here shown, may have formed one inscription, as had been previously suggested by Orellius. The weight of one portion is given by Mommsen as  $32\frac{1}{4}$  lib.; he gives that of the other, as " $34\frac{3}{4}$  libras ponderis ejus quo Basileæ ferrum appendere solent." The weight, as sent to me by Dr. Keller, on information received from the keeper of the Museum at Basle, slightly differs from this statement.<sup>1</sup>

The following observations are given by Mommsen :—

"Partes hodie junctas olim unam massam effecisse et testantur antiquiores et demonstravit Rothius; inscriptiones duobus sigillis altera juxta alteram impressæ sunt spatium inter utramque interposito. Puncta complura apparent in superficie casu sparsa, ut nihil impediatur quominus in altera legatur Societatis Titi Lucretii."<sup>2</sup>

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where the above-mentioned *massa* is figured; Roth, Roman Inscr. of the Canton of Basle, in Trans. Ant. Soc. of Basle, I. p. 23, 1843; and Orellius, Inscr. Helvet., Mitth. Ant. Soc. Zürich, vol. ii.

<sup>1</sup> Weight of No. 1, as given by Dr. Keller,  $31\frac{1}{4}$  lib., or  $15\frac{3}{4}$  kil.: No. 2,  $34$  lib.

129, or 17 kil. 187 gr.

<sup>2</sup> Orellius had proposed to read the inscription thus, *in extenso*—*Societatis Sexti Lucretii*. "In massa plumbea lx. librarum." See Monumenta Minora, in the Collection Inscr. Helvet. by Orellius, p. 210, No. 312; Mitth. Soc. Ant. Zurich, vol. ii.