

REPORT AND COMMUNICATIONS.

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REPORT

PRESENTED TO THE

**Cambridge Antiquarian Society,**

AT ITS FORTY-FIRST ANNUAL GENERAL MEETING,

MAY 30, 1881,

WITH AN ABSTRACT OF THE PROCEEDINGS OF THE SOCIETY,  
1880—1881.

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\* ALSO

**Communications**

MADE TO THE SOCIETY.

No. XXIII.

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# REPORT

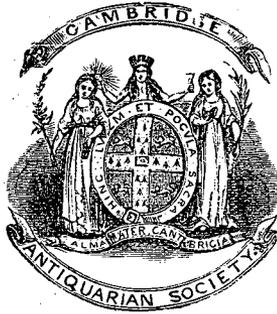
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III. "STAMPARE A CONIO." HOW DID THE ROMANS STRIKE THEIR MEDALLIONS? Communicated by the Rev. C. W. KING, M.A., Trinity College.

[February 28, 1881.]

EVERY intelligent numismatist must often have asked himself the question, "How did the Romans manage without the aid of the coin-press to strike pieces (often in hard bronze), of the dimensions of their so-called medallions, varying from two to



MEDALLION OF PROBUS.

*Obv.* Bust of Probus, laureated and wearing a cuirass: on his right side is seen a lance, on the left a shield ornamented with an equestrian figure of the Emperor, preceded by a Victory and followed by a soldier. IMP(erator) PROBVS P(ius) F(elix) AVG(ustus).

*Rev.* The three Monetae, standing erect and looking to the left; each one holds in her right hand a balance and in the left hand a cornucopiae; at the feet of each is a money-bag full of coin. MONETA • AVG.

three and a half inches in diameter? Their dies, as many existing specimens attest, were of no better material than a brittle mixed metal, something like fusible brass, which, though

available for the small surface of the current coin, would be certain, as any one acquainted with the process will admit, to fly into fragments under any blow of sufficient force to bring up the relief upon blanks so extensive as those required by the medallions. Besides, examination of the field of the latter clearly proves that the impression of the die was produced by some power that acted evenly and steadily upon the whole surface at once, thus forcing the metal into the most delicate lines of the engraving, not by the violent impact of a single blow given with a heavy hammer; of which latter method all so-called "hammered money" always presents unmistakeable evidence in the unevenness of the relief, the shifting of the letters, and the general irregularity of circumference, resulting from the difficulty of applying such momentary pressure upon the head of a die (the *tressel*) held in the left hand of the monetarius. In coins made by this primitive and expeditious process, the two circumferences of the upper and the lower die seldom exactly coincide, and frequently the one has so far overlain the other, that even where much care has evidently been taken with the mintage, part of the legend on one side is driven, as collectors call it, "off the field." No such failure as this ever disfigures the medallion of the same period; the dies fit as exactly, and the field and edge come forth in almost as true a circle, as are seen in the productions of the modern coining-press.

The latest writer upon the subject, Lenormant<sup>1</sup>, has devoted much space to the consideration of the various explanations which have been offered of this difficult problem, but with no better success, it seems to me, than those who have preceded him. He finds his solution of the difficulty in the oft-repeated story about a wall-painting discovered in a crypt at Posilipo representing the interior of a mint, where a great stone suspended over the dies did the duty of a "monkey" by its sudden

<sup>1</sup> *La Monnaie dans l'antiquité*, vol. 1. pp. 251—255.

fall. But it must be borne in mind that the violent and momentary impact of the "monkey," although available and actually often employed for striking current coin in flat relief, would not produce the effect of the operation to which the medallions are due, even if it did not destroy the dies themselves by the sudden jar. But as no copy is forthcoming of this picture, invaluable as it would be to every student of numismatics, and as there is great possibility of mistake on the part of the ignorant artist who tells the story, no certain argument can be based upon the tradition.

Having said thus much to express my dissatisfaction with the explanation of the eminent French archaeologist, I shall proceed in my turn to propose another, which seems to me at least to meet all the exigencies of the case. It was suggested to me, some time ago, in reading a highly valuable work, very little known to archaeologists; otherwise, I make no doubt, I should have been anticipated in my application of its rules to the present emergency. Cellini in his treatise *Oreficeria*, cap. ix., describes with great minuteness the "old" method of striking medals (as distinguished from current coin), which he calls "*stampare a conio*," "striking by wedge"; at that time (1560) nearly superseded by the coining-press, "*la vite*." The apparatus consisted of an oblong iron frame, called *staffa*, "stirrup,"  $10\frac{1}{2}$  in. high, 3 in. broad, and  $1\frac{1}{2}$  in. thick<sup>1</sup>: within which were placed the dies, which were cut square, and exactly fitted into the frame, so as to prevent all possibility of shifting during the operation. This left a vacancy of  $2\frac{1}{8}$  in. between the top of the upper die and the inside of the *staffa*, into which were driven, from opposite sides, two great iron wedges, each 15 in. long, and half as thick again at the head as at the point, so as to come well over the top of the dies in the frame. The whole machine was then lifted up, and placed with the head of one

<sup>1</sup> Cellini gives these sizes in *dita*, parts of the Tuscan *braccio* = 21 inches; but I have reduced them to English measure for the sake of clearness.

wedge resting upon a great stone, and struck upon the other head with a sledge-hammer, *mazzetto*, wielded with both hands; care being taken to turn each head down alternately, in order to secure uniform pressure upon the metal within the dies. The reason for using a stone instead of an anvil for the support of the machine, seems to be that its more yielding nature would obviate the rebound after each blow that would have necessarily resulted from impact upon an unyielding surface. After every five or six blows it was necessary to take out the blank, and anneal it well in the fire in order to restore its softness. Now it is a very singular coincidence that Lenormant remarks that the famous twenty-stater<sup>1</sup> piece of Eucratidas, the largest of Grecian make yet discovered, bears unequivocal traces not merely of having been frequently removed from the dies, but even of the repairing of damages sustained by the dies during the progress of its striking. In addition to all these precautions, Cellini advises that to "ease the dies" by preventing too great strain upon their hollow parts, the blank should first of all be roughly formed to the proposed design by casting in a clay mould made upon the wax impression from the dies.

This simple, effectual, though tedious method (for Cellini observes that a couple of turns of the press does more work than a hundred blows with the hammer) seems to me to have been the very one used by the Romans for striking their great medallions, and to have been preserved by tradition in the practice of the Italian mint. The principle was in reality only that of the oil-press (*trapes*), in which the bags of olives were squeezed under thick beams, laid horizontally, one above the other, in a strong wooden frame, and tightened by wedges driven in successively with a heavy mallet; as is clearly shown in a wall-painting from Herculaneum, representing sportive Cupids at the work. To transfer the method to an operation of another art, but one equally requiring great pressure uniformly

<sup>1</sup> Now in the French National Collection.

applied, was so obvious a thing, that it could hardly escape the notice of any ingenious mechanic seeking after improvement in monetary instruments.

The previous formation of the blank in a mould will at the same time account for the roundness and uniform thickness of the Roman medallions and for the exact way in which the obverse



*Trapes* from a painting at Herculaneum.

fits the reverse die; so strongly contrasting with the faultiness in all these particulars that offends the eye in the current coin of the same period. Lastly, it may be added that the strongest evidence in favour of the employment of the *stampare a conio*

in the Roman mint is furnished by the widespread and thin medallions that commence with Constantine. It is precisely in works of this nature, where the blank is very broad, and its thickness very small, that the defects of the unassisted hammer show themselves most conspicuously, in the double-striking of parts of the relief and the confusion of the lettering, arising from the rebound of the dies after the blow; abundant proofs of which may be seen in all mediæval gold and silver coins, equal or inferior in circumference to the imperial medallions just quoted. But it will be found that these late medallions are as evenly and truly struck as any of their thick and more contracted predecessors: a fact which renders it incontestable that some mechanical contrivance answering the purpose of the modern coining-press must have been used in their manufacture.

Before quitting the subject of medallions in general, I cannot help adverting to a most singular recent opinion, which Lenormant also endorses, as to the purpose for which they were intended at the time they were issued. The only argument advanced in its favour is based on the circumstance that bronze medallions are sometimes found let into moulded frames of the same metal, which adjunct is supposed to show that several connected together in a vertical row by means of solder constituted the "imagines imperatoriae," known to have been carried on the Roman standards, and often represented on monuments and coins. But nothing can be more ill-considered than such an identification: for, in the first place, the size of these framed medallions is far below that of the circular decorations affixed to the standard poles as estimated by their relative proportions to their bearers; and again, a moment's reflection will convince us that a row of such disks merely united by soldering the edges, would be liable to break with its own weight; not to speak of the heavy ensign carried on its summit. Besides, the evident exertion of strength by the stout *signifer* in the bas-

reliefs on Trajan's Column is a sure evidence that the standard, however constructed, was a very weighty affair.

But what these *imagines* really were, has recently been made known through a discovery in the ruins of the Praetorian Camp in Rome of a circular bronze disk, seven inches in diameter, bearing the radiated head of Caracalla in front face, and in half-relief. It is admirably done; the face wearing a more than usually truculent expression, befitting the destination to which I assign it, is absolutely full of life. There is every reason to believe that this plaque was the *imago* of a Praetorian ensign, for its dimensions agree well with those of the disks on the standard poles in sculpture, as measured by their relative proportions; and, what is more, the margin is hammered to an edge for the purpose of mounting it in a frame. Now, the usual representation of the *signum militare* shows it as constructed of as many as three strong circular frames, inclosing something in relief, fastened together by their circumference, and mounted on the top of a thick staff terminating in a spear-head for the purpose of fixing it in the ground. (The plaque is admirably figured to the actual size in the *Archäologische Zeitung* for 1878, Pl. 6.)

By no other method of coining can we explain the use of that very remarkable die published by Caylus, *Recueil d'antiquités*, Vol. II. pl. LXXXIII. no. 2; and which he was inclined to suppose the instrument of a modern forger, had it not been for its material—hardened copper. This is a perfectly flat disk,  $2\frac{1}{2}$  inches in diameter, and  $\frac{7}{12}$  inch in thickness; engraved with the obverse of a medallion of Claudius, surrounded by a carefully sunk groove, which was evidently intended, as Caylus himself perceived, to fit upon a corresponding moulding in the rim of the other die. From the side projects a "tail," 2 inches long, for the greater convenience in handling the die—a convincing evidence that the pair, when adjusted together, were placed *within* some contrivance resembling in nature Cellini's

“stirrup”; and therefore not easily accessible from the sides; although the dies required frequent removal from the machine during the process of striking. It is obvious that a die so extensive in surface and so thin in substance as this could not receive the direct blows of the hammer without speedy destruction, but that it must have been made to yield its impression by means of some steadily applied force like that exerted by the wedges in the operation already described. Another curious particular remarked by Caylus is that the deeper cavities of the engraving still retain particles of gold, showing upon what material the die had anciently been employed; and yet from its extraordinary magnitude it could only have served for medallions of the largest size known to the Romans, of which no specimens are extant of so early a date.



MEDALLION OF FAVSTINA I.

- Obv.* Bust of Faustina Senior wearing a veil : DIVA • AVGVSTINA.
- Rev.* Portrait statue of Faustina as Immortality, standing erect and looking to the left; in her right hand she holds a globe on which stands a phoenix; the left arm rests upon a cippus (the emblem of stability): AETERNITAS.