A CONTEMPORARY FORGERY OF A WILLIAM III CROWN

By R. H. M. DOLLEY, G. F. HOWELL, and H. G. STRIDE

RECENTLY we were asked for our opinion on a crown piece of William III with the hitherto unrecorded date 1699. The coin was rendered doubly suspicious by the fact that the edge legend read NONO, whereas a true coin of 1699 should have read either UNDECIMO or DUODECIMO, more probably the former, as no DUODECIMO half-crowns of 1699 are known. We noted that the flan was appreciably larger than those of genuine crowns of the period, and also that the angle the edge formed with the faces was far from constant. Despite the larger flan there was a weight deficiency of 19 gr., or roughly 4 per cent. This is far from being impossible in a genuine coin circulated of the period, but scarcely seemed warranted by the coin’s comparatively good condition. Two excrescences on the edge seemed to suggest a casting-channel, but can also be explained as marks left by the Castaing machine on a blank slightly too large. A small flaw in the obverse gave a definite impression of plating, and the coin was returned to its owner as false.

Subsequently we were asked to review our verdict and also to substantiate it. Already we had noticed that the crown’s obverse appeared to be from a regular obverse die of the 1695/6 issue, but curiously distorted, while the reverse suggested a clever but not too happy attempt to reproduce (or anticipate) a regular 1700 die with the punches of the 1695/6 issue. The Chemist and Assayer of the Mint, Mr. W. A. C. Newman, C.B.E., confirmed our suspicions of plating by pointing out that a density of 8.951 was lower than might be expected of an alloy, but compatible with the presence of a copper core. He also reported the presence of copper at the bottom of the above-mentioned flaw. Finality, however, would be impossible in view of the owner’s natural and very proper reluctance to allow his coin to be cut open. Mr. C. W. Peck of Wimbledon was kind enough to
draw our attention to the fact that under the Commonwealth David Ramage not only used copper-cored blanks for some of his patterns, but was accused of so doing by his contemporaries. These accusations are more important than they may seem at first sight, because they dispose effectively of any suggestion that the Ramage copper-cored patterns are later restrikes or fabrications.

Here the matter might have been left, had not the crown's owner most generously submitted three plated half-crowns of the selfsame period together with permission for one to be cut open. It should perhaps be noted that the crown had a Scottish provenance, and that the three half-crowns are believed to have been discovered in the old Edinburgh Mint. They were immediately forwarded to the Chemist and Assayer and the following is a summary of his report:

"The three coins were weighed and their density established as follows:

(a) 11-2484 grammes  Density 8-843
(b) 10-8032 ,, ,, 8-996
(c) 12-2202 ,, ,, 8-930

The average density of a genuine coin of the same period would seem to be in the neighbourhood of 10-357, and it will be seen that the discrepancy is serious. The average density of the three forgeries is 8-823, and this accords well with the figure of 8-951 arrived at in the case of the 1699 crown. The half-crowns were all considerably worn, which would explain the slightly lower density.

In view of its close approximation in density to the 1699 crown (8-930 as against 8-951), coin (c) was selected for further tests. The margin is so narrow that they could scarcely have been produced except by the same method. An assay gave the following result:

Silver 3-74
Copper 90-54
Lead 0-62 (probably contamination from refining of silver)
Tin 0-05
Zinc 3-33
Nickel 0-06

Thus the total weight of silver on the coin would appear to be in the neighbourhood of 0-48 grammes. The actual measurements of the coin are as follows:

Thickness 1-6 mm.
Diameter 32-5 mm.
Maximum thickness of silver on flat surface 0-017 mm.
Minimum ,, ,, ,, ,, ,, 0-015 mm.
Maximum ,, ,, ,, ,, rim 0-011 mm.

If we assume that the whole of the coating is of pure silver we arrive at a theoretical weight of 0-52 grammes. This is a little on the high side, but microphotographs show that the edge silver is not pure but alloyed with copper to approach the eutectic.1 This would suggest a figure rather nearer 0-45 grammes, a remarkable confirmation of the assay estimate of 0-48 grammes.

Microphotographs of a section of the coin are very revealing. [Appendix A and Pl. VII.] No trace of flux or solder can be detected between the silver faces and the copper core, and the metallic structure suggests that a copper plate was rolled (or hammered) between two sheets of silver until mutual adherence was achieved. This is the process known today as Sheffield plating. The photographs likewise suggest that the coin blanks were cut out and annealed before striking, and that the edges were covered up by the application of the eutectic of copper and silver.1

1 eutectic, i.e. the alloy of two metals with the lowest melting-point, usually considerably below that of either of the constituents.
The importance of this report is that it postulates a new and very much earlier date for the invention of the process later to be known as Sheffield plate—that is, if it can once be shown that the crown was struck within a year or two of the date it bears. Fortunately there is every reason for us to believe that this was the case. The obverse die is official, and the reverse die engraved with official punches. Contemporary records tell us that dies and punches were being smuggled out of the London Mint at least as late as Newton’s wardenship. We must also ask ourselves why a forger working after 1742, the traditional date of Boulsover’s invention of Sheffield plate, should have gone to such trouble to imitate the 1700 design. A 1696 crown for which he had both dies would have seemed no more suspiciously new than one dated 1699. A fabricator hoping to supply a collector with a new date for the William III crown could surely have attempted a more convincing reverse, and certainly would not have “tyned his ship” by using a plated flan and an inconsistent edge.

It is very tempting to ascribe the 1699 crown to a particular forger, and we think that this will one day be possible. At this stage, however, we will content ourselves with transcribing three contemporary documents that may prevent premature conviction of the most obvious suspects. They are James Hunter and “Scots Robin”, whom the Commons Journals of 1697 accuse of having decamped with dies and punches from the London Mint to Scotland and of being “sheltered in the Mint there”. The first of these documents is completely new to numismatists as a result of its having been overlooked or rejected by Cochran-Patrick, though it is to be found in one of his richest quarries.

**HUNTER’S PETITION**

At Anent the petition given in to the Lords of his Majesties privy Councill by James Hunter Smith in Musleburgh Shewing that the petitioner all his Lifetyme hath behaved himself honestly and Christianly in his Imployment both at home and abroad without the least blott of reproach But some years being unfortunately appointed to serve in the tower of London under two papists viz Robert and James Ratries (whose deportment since the petitioner Left their service hath sufficiently evidenced what men they were) The saids Ratries while the petitioner was serving under them being blamed for some things They most unworthily Endeavoured to Load the petitioner And he having abyde his tryall was acquitt and restored to his Imployment But afterwards the petitioner finding that he was not in safety while he was amongst them and that another was designing his place he thought fitt to return to Scotland wher he was borne And the petitioner hath Lived in the towne of Musleburgh in the very mercat place neer these two years bygone without the Least offence or hurt to any man And in January Last the petitioner having applyed for some Imployment in the Mint how he was told by the master that he could be admitted to noe Imployment how unles he had a Certificat from the masters of the Mint at London for their Certificat there But some evill persons having given Information agt him to his Majesties Secretariat that he should be a Clipper or Coyner or guiltie of some evill practices how he is now apprehended and made close prisoner these seall weckes to the great grief of his poor wyfe and numerous family And seing the petitioner is altogether Innocent and nothing Can be justly charged agt him as the
masters of the tower of London and the bailies and all his neighbours at Muslburgh will declare. And that he is most willing to abyde any tryall their Lops/ pleases And in regard that both the petitioner is sickly and that his poor wyfe and children have been sick and one of his bairns dead since his Imprisonment. And therefore humbly Craving their Lops/ to take the petitioners sadd case to their serious Consideratione And aither to Grant him his Libertie or to putt him to a tryall which he is most willing to undergo as the said petitione bears The saids Lords of his Majesties privy Councill having considered this petitione given in to them by the said James Hunter. They hereby allow the petitioner the benefite of open prisone. The Magistrats of Edinburgh and Keeper of the tolbooth being always answerable for his safe Custody/

From the Register of the Privy Council (Acta).

The importance of this document is that it fixes the date of the flight as the first few months of 1695. It also shows that the House of Commons was more than a little careless of the truth when it accused the Mint of Edinburgh of sheltering Hunter. In addition it may seem to clear Hunter inasmuch as he could scarcely have had access to a NONO edge legend before his flight. However, the question of Hunter’s innocence or guilt is one we propose to leave to another occasion, only remarking that the most careful scrutiny of the Newgate records has failed to bring to light an allusion to Hunter’s previous “tryall”. It seems obvious that neither the Commons Journals nor Hunter’s petition are sources in which we can repose blind confidence.

Our second source is also new to numismatists. It is the baptismal entry of one of Hunter’s children.

Parochial Register for the Parish of Inveresk (Musselburgh).

“August 1697”

James Hunter and Jean Chapman his spous ther daughter naimed Margaret was born the 7 day of August and baptized the 8 day thereof Witness Alexr. Anderson and John Hunter.

It may seem to suggest that Hunter for a time “went straight” after his release, but also that he was related to “Scots Robin”, who was no other than Robert Chapman. It will be noticed that the maiden name of Hunter’s wife is given as Jean Chapman. Chapman is, of course, a common enough Lowland name, but we do feel that some degree of affinity would explain why the names of James Hunter and Robert Chapman are so often linked in contemporary records. Our third document is already known to numismatists from a footnote in one of Miss Helen Farquhar’s papers, but has not been published. It is a list of labourers at the London Mint drawn up about a year after Hunter and “Scots Robin” had decamped. It will be noticed that of nine Roberts not one has a characteristically Scots surname. It would not be so very surprising if a tenth Robert of Scots descent was known to his fellows by the nickname of “Scots Robin”.

Treasury Board Papers (T.1) Volume 38, Number 19
19. The Naimes of Labrs. now Employed by the Corporation of Moneyrs. May ye 23rd 1696 as ffollows viz

Robert King Joa Harrison Joa FFreman
FFrances Betts Rich Blessett Rich Hutton
Robert Wright
Phillip Purser
Henry Kirkman
Jo Smith
Bartholl: Diminitt
FFrances Diminitt
Wm Bridgman
Hugh FFloyd
Jery Pole
Luke FFicher
Antony Boyston
Jo Weelewright
Ed: ward Maynard
Tho: Leutton
Geo: FFearn
Ed: Womsly
Joseph Jones
Tho. Gascoigne
Jo Ranch
Geo: Teaser
Danill Lyon
Joseph Lee
Tho: Wager
Robart Stable
Tho Panter
Jo Lea
William Rose
Robert Cooke
Ed: Lee
Jo Sutton
Abra Rogers
Ed: Baker
FFrances Constable
Tho: Jones
Robert Shaw
Isaac Selby
Jo Marsh
Jon Cooke
Jo Taylor
Ed: Clayton
Wm Hendle
Tho: Quicke
Roger Hill
Jo Justus
Tho Clarke
FFrances Palmer
Wm Chalkhill
Ed: Benett
Gundry Brown
Rowland Scott
Rise Jones
Tho: Tickner
Tho: Hales
Clement Hyde
Tho: Wodkins
Richard Page
Tho Odell
Wm Brown
Water Swan
Moses Baker
Tho: Pickhaver
Tho: Threwgood
Wm Rabads
Stephen Rewbub
Tho: Aron
Geo: Woods
Wm Bently
Martaine Sedly
Jo Ballard
Tho: Hyde
William Adamson
Jo Powell
Rich: Hublyn
Jo Warman
Jacob: Weyman
Wm Gore
Wm Pencase
Rob: Wilkison
FFra Butterfeild
Rich: Ransford
Jo Jones
Tho Adamson
Jo Hall
Joseph Smith
Wm Teple
David Clarke
Tho: Hunt
Daniell Bud
Wm Patterson
Jo Marsh
Henry Lee
Wm Robards
Jo Jackson
Rich: Collens
Rich Mogg
Ellice FFarrow
James Smith
James Rise
Rich Stephenson
Tho: Powell
Sam Pollick
Antony Ridgden
Mungo Grant
Mathew Sothbey
Jo Jones
Tho: FFreeman
Jo Edge
Tho Walker
Wm Gascoigne
Zackery Wright
Ed: Bincks
Rob: Ratlife
Tho: Prest
Wm: Parkhurst
Wm: Drapper
Jo Wood
Jo Abbott
Benj Walker
Jo Mellett
Jo Villers
Jo Ledger
Jo Theifeild
Jo Johnson
Tho: Peirson
Jo Green
Tho: King
Rich. Cocks
Edw FFreeman
Jo Smith
Tho: Tauntery
Joseph Harris
Peter Tvhurst
Jo Bett
James Savidge
Simon Skratchly
Wm. Harding
Tho: Atkins
Ed: Hodgkins
Wm F Francks
George Borrington
Jo Hall
Ed: Bickerton
Henry Godfry
James: Yeats
James: Jowell
Rich: Turner
Tho: Borne
Sam"Hunt.

48
57
53

Edward Mainard
James Looker

in all 158 men

Benj Hornol
Rob: Lancashire
Rob: FFortune

2

160
As we said before, we believe that it should one day be possible to establish the identity of the author of the 1699 crown and of other plated forgeries of that period. However, we feel that this particular inquiry should form part of a wider investigation into all the plated forgeries of the Ormonde crowns, and to relate these forgeries to Ramage’s patterns and in particular to a cut piece in the British Museum’s trays that seems to have been completely ignored by Mr. C. L. Mason’s critics. At present we cannot tell how wide will be our net, but we do feel it ominous that plated forgeries should have begun to circulate in this country within a few years of the introduction by Briot of the rolling-press that made such forgery feasible. We are satisfied, however, that we have produced sound evidence for Sheffield plating having been invented long before Boulsover’s “discovery”.

It only remains for us to express our obligations to all those who have assisted our investigation, the late Mr. Rex Hill of Edinburgh, the owner of the four coins, Mr. W. A. C. Newman and Mr. E. G. V. Newman of the Royal Mint who carried out countless scientific tests, Dr. C. T. McInnes of the Register House, Edinburgh, who brought to our notice two of the documents quoted above, and Dr. John Allan, Dr. Robert Kerr, and the Town Clerk of Musselburgh who answered divers queries with great kindness. For permission to reproduce Mr. Newman’s photographs we are indebted to the Deputy Master of the Mint, and to transcribe three documents to the authorities of the Public Record Office and the Edinburgh Register House.

APPENDIX A

Explanation of Plate VII

A. Photomicrograph, magnification 50 ×, of the end of a section through the coin showing streamlining of the rolling marks due to force of cutting the blank. The layer of silver on the flat surfaces is appreciably thinner than that on the rim, and there are two breaks—one much larger than the other—where the silver on the obverse and reverse runs into the rim silver.

The silver on the rim is in fact mainly an alloy with copper approaching the eutectic. (See photographs B and C, and comments thereon.)

B. Photomicrograph, magnification 135 ×, showing:

(a) eutectic nature of “silver” on rim and that the alloy has been heated;
(b) break between silver on the flat surface and “silver” on the rim.

C. Photomicrograph, magnification 525 ×, showing the eutectic structure of the silver alloy on the rim, and substantial degree of spheroidization of the component copper indicative of annealing. No comparable eutectic structure can be detected in the section of the thin layer of silver on either flat surface. This might possibly be due to failure of the magnification used to resolve the presence of an eutectic structure, but it is much more likely that the thin layers consist of almost pure silver.

The surfaces of the silver/copper eutectic and of the adjacent copper portions on the section are at slightly different levels. In this photomicrograph, the eutectic is in focus, and the copper core in consequence is slightly out of focus.

D. Photomicrograph, magnification 525 ×, showing the same surface as photomicrograph C, but with the copper core in focus.
Signs of flow structure are visible, but there is a marked predominance of equi-axed crystals produced by annealing. There is also evidence of "twinning" consequent on the striking of the blank before annealing. The boundaries of the crystals are generally thicker than might have been expected, and this may suggest the segregation of some impurity such as lead.

The heavy dark band between the eutectic and the copper core may possibly be due to the diffusion of silver from the former into the latter, evidence of which may also be seen in photomicrograph C, as well as to the formation of copper oxide on the core in the course of the heating that preceded rolling.

E. Photomicrograph, magnification 525 x, showing part of a section of the flat surface, with the copper core in focus.

F. Photomicrograph, magnification 525 x, of the same section, but with the silver portion in focus.

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PHOTOMICROGRAPHS TO ILLUSTRATE 'A CONTEMPORARY FORGERY OF A WILLIAM III CROWN'

Plate VII