PRESIDENTIAL ADDRESS

C.E. CHALLIS

I wish to record at the outset of my address my warm support of two initiatives made during the past year which should, if properly supported by us all, facilitate and foster the study of numismatics. The first, the establishment of the Coordinating Committee for Numismatics in Britain (CCNB), has come, very appropriately if I may say, from the new Keeper of the Department of Coins and Medals in the British Museum, Dr Andrew Burnett. This Committee, designed to bring together in an informal way ‘all those interested in any aspect of numismatics’, has already met once in London and will do so again in Derham on 16 January, 1993. That from the start it is intended to be peripatetic is very much to be welcomed, as is the appearance of its first newsletter, the heart of which is a most useful listing of numismatic lectures, seminars, colloquia, conferences, auctions and fairs.

The second initiative has come from the United Kingdom Numismatic Trust of which I, as your President, am ex officio a member. The Trust was established to organise the International Congress held in London in 1986 and subsequently it used the small residual profit from that Congress to support various numismatic projects. Last year it became apparent that unless further funds became available the Trustees would in reasonably short order have nothing left to administer and so a decision was taken to explore the possibilities of a fundraising drive. In subsequent telephone conversations and over a late breakfast at Fortnum and Masons on 24 March, Professor Buttrey and I discussed the form which the appeal might take and I am delighted that a document has now circulated to you, rightly enough under the name of Professor Buttrey, who is the current chairman of the Trust. We are looking for £10,000 to add to our existing funds, thereby generating an income which will allow us each year to support numismatic activities which might otherwise go unsupported – exhibitions, travel and subsistence for attending numismatic conferences, the reproduction of photographic numismatic material, and so on. We do not see our task as supporting ‘publication of studies which could otherwise find a place in scholarly or commercial lists’ or providing funds for major collections to build up their holdings. We are interested in supporting individuals or bodies who have quite specific, small-scale, needs – hundreds rather than thousands of pounds – and I very much hope that you will feel able to respond positively to the Trust’s appeal. If every ordinary member of this Society contributed as little as £20 – the price of a pizza, a glass of wine and a coffee for two – we alone could find most of the Trust’s target figure.

In my last address I outlined plans for the establishment of a special publication fund which would use the legacy from Mr Osborne and matching capital raised from other sources to finance the publication of numismatic works which for reasons of ‘size or complexity might not be publishable according to normal commercial criteria’. We now have several volumes firmly in mind and I am pleased to report that the first, our late President, John Brand’s MA thesis on Short Cross coinage will be the first. We have an editor, the outside funds have been raised, and you may expect publication in 1993.

Allowing for nine amovables the membership of our Society tonight stands at 537; 410 being ordinary members, 122 being institutional and 5 being junior. It is my very great pleasure to record that one of these members, Vice President Stewart, has been raised to a peerage and as many of you will know is now styled Lord Stewartby, while another member, Mr Douglas Mitchell, completed during the past year sixty continuous years of membership. It must also be recorded, this time with sadness, the deaths of three of our members, Mr Stevenson, Mr Seaby and Mr Thomas Hemingway. The latter who had been a member only since 1988 I had never met, but the other two I most certainly had, as I am sure had most people here tonight. Robert Barron Kerr Stevenson who was Keeper of the National Museum of Antiquities of Scotland from 1946 to 1978 had been a member of our Society since 1969. Though never in my time more than an occasional frequenter of our meetings he was very well known throughout the numismatic community and widely respected as a scholar. It was very much to our gain that only a little time before his death he found time to work on the bawbee issues of James V and Mary and publish his important findings in volume 59 of our Journal.

I knew Mr Stevenson only slightly; Peter John Seaby who died on 18 July 1992, aged 71, very much better – partly because he was throughout his time at B.A. Seaby Ltd. a frequent attender of our meetings, partly because we served together on Council and partly, too, because I handled some of his work when editing our Journal. He was elected in February 1945, at the same time as his sister, Patricia, and, as he was later to recall, attended his first meeting while still in uniform. As most of you will know, Peter’s first love was the coinage of Stephen and for many the last time they saw him in action will have been at our one-day conference on Stephen which we held in Oxford last year. Gentle in temperament, unfailingly courteous of manner, and painstakingly scholarly in his approach to numismatics, Peter was both well liked and well respected. It goes without saying that through his long service in the family firm, his membership not only of this Society but also of the Royal Numismatic Society and the Yorkshire Numismatic Society, of which he was President in 1987, he was very widely known and he will be much missed.
Our lecture programme this year was opened for us by our Treasurer, Tim Webb Ware, with a refreshing new look at the coinage of Richard II. This was followed in February by Mr Withers on British coin weights and in March by a guest speaker from Estonia, Dr Ivar Leimus, curator of coins at the Estonian Historical Museum in Tallinn, on the twelfth-century Vaida hoard. In April Mr King discussed on 'Roman Coin finds from early Anglo Saxon sites' while in June we had a very welcome visitor from Ireland, Mr Heslip, who talked on 'Early eighteenth-century Ulster tokens'.

On the evening of Council's sherry party in May, Miss Pirie, who retires this year from the Museum service in Leeds, offered some reflections on her years of curating and exhibiting numismatic material, while in September Mr Eimer, a research student supervised jointly by our Secretary and myself, shared with us his preliminary findings on the origins of the Pingo family and their work.

Ladies and gentlemen, I have spoken on previous occasions both here and elsewhere on the debt which our numismatic community owes to the present deputy master and chief executive of the Royal Mint, Mr Tony Garrett, and in this his last year he has added to that, first, by providing large and much needed financial backing for the meeting of FIDEM of which I shall say a word more presently and, second, by most kindly agreeing to be our third Linecar lecturer. Taking as his title 'The Royal Mint: a pursuit of technical and artistic excellence' he spoke as a businessman, proud to be head of the world's premier mint, equally alert to the demands of the market place, technical progress and aesthetic considerations. His confident and lucid style held his audience to the end when it was with the greatest pleasure that I presented him, on behalf of the Society, with the very first copy of A New History of the Royal Mint.

As I said at the time, this was not like the books presented in the television programme 'This is your Life' because Mr Garrett's life in the Mint only began after the volume ended in 1985. But in my judgement, and the sustained applause when I made the presentation showed that it was also the judgement of the audience, no one could have been a more worthy recipient. He retires at the end of the year and I feel sure that you will want to associate yourselves with me in wishing him well.

In addition to chairing all our ordinary meetings here at the Warburg Institute during 1992, once again I have tried to represent our interests in the wider numismatic world by accepting invitations to lecture or preside in various parts of the country. From 3 to 5 April I was at the BANS Congress in Bournemouth where I lectured on 'Mint and Pyx: Seven Hundreds Years of Standards'. The excellent planning and organisation of the local team coupled with the best accommodation I can ever remember at a conference of this kind made it a particularly memorable occasion. On 13 June I went to Manchester to lecture on 'Small Change and the Circulating Medium in the late Tudor and early Stuart period', at the one-day conference on 'The Use of Small Change'. Fifty-five of us had a very enjoyable and informative day with papers besides my own from Dr Rogers on the period 1100 to 1600, Mr Thompson on the written evidence for the use of tokens since 1600, Mr Gallagher on the tokens of Ireland from the seventeenth to the nineteenth century, and Mr Dyer on the eighteenth-century issue of English regal coinage.

Vice President Mitchell very kindly chaired each session. I record here my thanks not only to our Director but also to Dr Keith Sugden of the Manchester Museum for the planning of such a worthwhile day. On 5 September it was my pleasure once again to attend part of the BANS lecture weekend course, which once again was held at Mickleover in Derbyshire. I had the agreeable task of giving the vote of thanks for the Royal Mint's lecture which was given this year by Raphael Maklouf the distinguished sculptor and head of the Tower Mint. All who heard what he had to say, principally in connection with his preparation of the present effigy of Her Majesty the Queen on our coins, came away with that very special feeling that they had shared the thoughts of a distinguished man, had learnt much of what makes him tick, and seen something important of the way in which he works.

On the sixteenth of the same month I represented the Society at the FIDEM reception held in the Gallery of the Department of Prints and Drawings in the British Museum and, finally on 31 October I once again went to Manchester, this time to lecture to the Lancashire and Cheshire Numismatic Society on 'The Coinage of Edward VI'. Finally, it is my pleasure to conclude this report on the year by thanking, first, all members of Council for their continuing support and, second, the officers of the Society for all their hard work. Our editors, I think, deserve especial praise both for their determined efforts to catch up on the publication schedule of our Journal and for the quality of production. A better set of plates we have not had for many a year.

These remarks conclude my report of our formal business and I go on to omit now as I did at this point last year a listing of the hoards found during the year in the United Kingdom, once again accompanying that omission with the promise that such a listing will appear in the printed version of this Address.

[This list which follows was very kindly supplied by Dr Bateson, Mr Besly and Dr Cook]

SCOTLAND

None.

WALES

ENGLAND

Iron Age

Snettisham, Norfolk (addenda). 4 Iron Age gold staters.
Fring, Norfolk (2nd addenda). 8 Icenian silver coins.
Heacham, Norfolk. 5 Iron Age gold staters.

Roman

Howe (addenda), Norfolk. 1 aureus and 13 denarii, AD 87
Brandonish, Suffolk. 67 denarii, AD 171.
Barway (addenda), Cambs. 20 denarii, AD 180.
Postwick (addenda), Norfolk. 10 + 11 denarii, AD 192.
Headbourne Worthy, Hants. 6 denarii, AD 241.
Crownmarsh, Oxon. 337 denarii and radiates, AD 265.
Wortley, S Yorks. 11 denarii and 70 radiates, AD 271.
Charnes, Isle of Wight. 455 radiates, AD 282.
Coalville, Leics. c.3,000 radiates, c. AD 290
Wheaton Aston, Staffs. 484 bronze coins, AD 354.
Whitwell, Leics. 1 AV ring, 2 solidi and 870 siliquae, AD 410.
Hoxne, Suffolk. 563 solidi, 61 milliarenses, c. 14,000 siliquae, 19 AE coins and 200 other AV and AR objects, AD 410.

Medieval and Modern

Hexham, Northumberland. April 1992. 27 AU, nobles of Henry V (1) and Henry VI, Annulet issue.
Little Glenham, Suffolk. 1989–90. 7 AR, groats and sixpences of Elizabeth I, latest coin 1573.
Congleton, Cheshire. 3,409 AR in 4 pots, Edward VI to Charles II, latest coin 1670.
Barnsley, Yorks. September 1991. 112 AU, 40 sovereigns and 70 half-sovereigns, 1842–1902.

FROM its very beginnings precious metal coinage has demanded that those who produce it must have the ability to establish both the purity of the gold and silver with which they work and the quantity of other metal which needs to be added to a given melt in order to produce coins of the fineness or standard set by Government. Put another way, an assayer has always had to be skilled both in the art of fire assaying and in the calculation of how bars of bullion or bags of coins, of different weights and of different finenesses, could be combined to give the coinage standard, while at the same time keeping to a minimum the addition of other metal. I stress *art* because we must remember that in the final analysis fire assaying is not an exact science; and I stress *calculation* because mint men are practical folk who neither refine the metal which is brought to them nor alloy it down, unless it is absolutely necessary. In all but exceptional circumstances, as in the preparation of trial plates when indeed a given quantity of the purest precious metal which could be had was added to a given quantity of the purest base metal in order to achieve the standard, mint men dealt with a whole medley of finenesses and sought to minimise the inconvenience this might cause in melting by mathematical calculations of the most precise kind.
Of fire assaying as such I wish to say nothing this evening but of the calculations of the kind to which I have just alluded I most certainly do, taking as my exemplar and guide John Reynolds, the assayer whom you may remember from my last Presidential Address one of Henry Slingsby’s correspondents described in 1665 as being at death’s door. In the event, Reynolds’s end did indeed come swiftly, terminating a mint career which had begun fifty-nine years previously. At one time it had seemed that he would end that career at the very top, for he had obtained a reversion on the post of master-worker. However, on the death of Sir Richard Martin in 1617 it was Sir Edward Villiers, the ambitious half-brother of the king’s favourite George, duke of Buckingham, rather than he who was appointed.

Denied the master-workership Reynolds had to be content with three more lowly posts. The first, to which he was appointed in 1607, which he exercised jointly with his brother Jeremy between 1615 and 1630, and which he subsequently held on to until his death in 1666 was assistant to the assay master. The second, which he exercised for much of the time between 1626 and 1662 was clerk to the master-worker. Because it was only from the former date that the master-worker accounted formally for his office, and therefore stated clearly who the officials were whom he employed, it is not possible to say if this first clerkship stretched back like the assaying post into the reign of James I. Reynolds’s third appointment, a second clerkship, this time in the warden’s office, most certainly did, beginning in 1616 and continuing until 1665.

As an assayer, Reynolds discharged the key function of testing coin before it issued from the mint and since he was sometimes referred to as deputy assayer it may well be that he did much else besides. His presence at the mint during the period when he was also common assayer at Goldsmiths’ Hall obviously laid him open to the charge that his independence in either institution was compromised by his presence in the other. But here the fact that he was only an assistant to three assay masters in a row – Andrew Palmer, Samuel Bartlett and John Woodward – seems to have stood him in good stead. For, as we shall see, quite unlike one of his predecessors, Richard Rogers, he was not compelled to abandon the Goldsmiths in order to keep the mint.

Of John Reynolds’s troubled life in Foster Lane and of the scrape he got into over the issuing of coin weights I shall say something presently but first let me round out his minting life a little more by drawing your attention to his treatise A Brief and Easie way by Tables To cast up Silver To the Standard of XI. Ounces iij. Penny-weight. And Gold To the Standard of XXII Carracts, with Questions wrought by the Golden-Rule: Also by Decimal Tables. First published in 1651 this treatise was reprinted postumously, in 1679, by William Badcock in A New Touch-Stone for Gold and Silver Wares and it is from that edition that I have taken examples to illustrate the kind of calculation which at the outset I said a mint assayer was accustomed to performing on a daily basis.

Suppose the mint receives four ingots:

<table>
<thead>
<tr>
<th></th>
<th>lb</th>
<th>oz</th>
<th>dwt</th>
<th>gr</th>
<th>dwt</th>
<th>oz</th>
<th>dwt</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1</td>
<td>40</td>
<td>6</td>
<td>10</td>
<td>00</td>
<td>16.5 Better than standard i.e. 11</td>
<td>18.5</td>
<td></td>
</tr>
<tr>
<td>No. 2</td>
<td>37</td>
<td>7</td>
<td>5</td>
<td>00</td>
<td>11.5 Worse than standard i.e. 10</td>
<td>10.5</td>
<td></td>
</tr>
<tr>
<td>No. 3</td>
<td>36</td>
<td>9</td>
<td>10</td>
<td>00</td>
<td>15  Worse than standard i.e. 10</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td>No. 4</td>
<td>38</td>
<td>11</td>
<td>00</td>
<td>00</td>
<td>10  Better than standard i.e. 11</td>
<td>12.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td>10</td>
<td>05</td>
<td>00</td>
<td></td>
<td></td>
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</tbody>
</table>

The question is what will be the outcome if they are all melted together: will the standard be correct, too high, or too low? Reynolds constructed fifty tables to allow the user to calculate the answer. The first deals with half a penny-weight of excess or deficient fineness – the betterness or worseness as contemporaries put it – and the last with 11 oz of excess or deficient fineness. By combining this last table or those dealing with whole ounces which precede it with the earlier tables from the half penny-weight to nineteen and a half penny-weight, one can calculate excess or deficiency by half penny-weights all the way through the troy pound of twelve ounces.

Let us see if you can pass your first practical. There are, as I say, four ingots two better than standard, two worse, so let us start with the good ones, nos 1 and 4. Since the first is said to be above standard by 16.5 dwt we turn to Reynolds’s table for 16.5 dwt. Moving down the left hand column to 40 we see that 40 lb of metal 16.5 dwt better has an excess of

<table>
<thead>
<tr>
<th>oz</th>
<th>dwt</th>
<th>gr</th>
<th>m</th>
<th>pts</th>
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</thead>
<tbody>
<tr>
<td>35</td>
<td>13</td>
<td>12</td>
<td>6</td>
<td>18</td>
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</table>

Moving to the top right hand table and using the left hand column in the first table, we see that 6 oz of metal 16.5 dwt better has an excess of silver above sterling of

<table>
<thead>
<tr>
<th>oz</th>
<th>dwt</th>
<th>gr</th>
<th>m</th>
<th>pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>22</td>
<td>1</td>
<td>3</td>
<td></td>
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</table>

Moving to the bottom table and moving down its own left hand column to 10, we see that 10 dwt of metal has an excess of silver above sterling of

<table>
<thead>
<tr>
<th>oz</th>
<th>dwt</th>
<th>gr</th>
<th>m</th>
<th>pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>16</td>
<td>28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

So the total excess of silver is

<table>
<thead>
<tr>
<th>oz</th>
<th>dwt</th>
<th>gr</th>
<th>m</th>
<th>pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>1</td>
</tr>
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</table>

For ingot No. 4 which is 10 dwt better than standard we need Reynolds’s table for 10 dwt. Moving down the left hand column to 30 we see that 30 lb of metal 10 dwt better has an excess of silver above sterling of

<table>
<thead>
<tr>
<th>oz</th>
<th>dwt</th>
<th>gr</th>
<th>m</th>
<th>pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>4</td>
<td>7</td>
<td>15</td>
<td>25</td>
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</tbody>
</table>

Repeat the process for 8 lb, to give 38 lb in total

<table>
<thead>
<tr>
<th>oz</th>
<th>dwt</th>
<th>gr</th>
<th>m</th>
<th>pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>6</td>
<td>11</td>
<td>13</td>
<td>19</td>
</tr>
</tbody>
</table>

Moving to the top right hand table and using the left hand column in the first table, we see that 11 oz of metal 10 dwt better has an excess of silver above sterling of

<table>
<thead>
<tr>
<th>oz</th>
<th>dwt</th>
<th>gr</th>
<th>m</th>
<th>pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>21</td>
<td>16</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

So the total excess of silver is

<table>
<thead>
<tr>
<th>oz</th>
<th>dwt</th>
<th>gr</th>
<th>m</th>
<th>pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>0</td>
<td>17</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

The total excess silver is thus

<table>
<thead>
<tr>
<th>Ingot No.</th>
<th>oz</th>
<th>dwt</th>
<th>gr</th>
<th>m</th>
<th>pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>36</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>21</td>
<td>0</td>
<td>17</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

Total

<table>
<thead>
<tr>
<th>oz</th>
<th>dwt</th>
<th>gr</th>
<th>m</th>
<th>pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>57</td>
<td>3</td>
<td>21</td>
<td>12</td>
<td>1</td>
</tr>
</tbody>
</table>
For Ingots No. 2 and No. 3 we repeat the same process using Reynolds’s table for 11.5 dwt for No. 2 and the table for 15 dwt for No. 3. These tell us that the deficiency overall is

<table>
<thead>
<tr>
<th>Ingot No. 2</th>
<th>23</th>
<th>7</th>
<th>12</th>
<th>6</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingot No. 3</td>
<td>29</td>
<td>16</td>
<td>14</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>The excess of fineness is thus</td>
<td>57</td>
<td>3</td>
<td>21</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>20</td>
</tr>
</tbody>
</table>

This tiny sum is then added to the original four ingots to make in standard silver 154 lb 2 oz 4 dwt 18 gr. Could there be a clearer demonstration of mint men using their minds rather than their muscle to solve their day-to-day working problems?

Into the ways in which Reynolds’s other tables may be used there is neither the time nor the necessity to go this evening. What it is important to stress is that *A Brief and Easie way by Tables* was the third of his three works: the first being *An Advice touching the Currancie in payment of our English Gold* (1627); and the second, *Perfet Directions for all English Gold, now currant in this Kingdome* (1631). In essence, *Perfet Directions* was an expanded version of *An Advice* and like its predecessor shows clearly that Reynolds was publishing in order to help people value current gold coin properly; through them he must have become as well known in the money market of his day as he was in minting circles.

In turning to glance briefly at Reynolds’s background and training we may observe that he was made free of the City of London in 1606 and, if it can be assumed that he was then aged twenty-four, the age which the custom of London recognised as a minimum for obtaining the freedom, he must have been born about 1582. He was not, as is sometimes supposed, the son of the instrument maker and gunner of the same name but the son of William Reynolds, a fletcher of London. Whether the father did indeed practice his designated profession cannot be taken for granted because by this time a man might, once free, practice whatsoever craft he wished. But of John’s own profession, that of a goldsmith, and of his receiving instruction in mathematics and the best possible skilled training in the art of assaying there can be no doubt.

The master from whom Reynolds learnt his mathematics was John Godwyn, a teacher of arithmetic and geometry in the City of London and the master to whom he was bound as a goldsmith for eight years in 1599 was Richard Rogers, the younger, comptroller of the mint from 1599 to 1636. Richard’s uncle and namesake had been assay master at the mint in the 1560s and had bid fair to combine this post with that of common assayer at Goldsmiths’ Hall. Since, from time to time, these two officials were called upon to act as a check on each other’s work, as when the goldsmiths officiated at the trial of the pyx, such a combination could not be tolerated and in 1567 Richard Rogers had been compelled to give up the mint.

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3 Nine folios later Reynolds gives an alternative way of calculating betterness and worseness by multiplication. In this the difference between the two is said to be 3 oz 13 dwt 18 gr 15 mites to which is put an addition (unspecified) of 5 dwt 23 gr 11 mites, making a total ‘alloy’ of 3 oz 19 dwt 18 gr 6 mites, which equals the quantity added in according to the previous method of calculation and therefore gives the same gross total of standard silver to be produced from the four ingots i.e. 154 lb 2 oz 4 dwt 18 gr.


Richard Rogers, the elder, who trained Richard Rogers, the younger, and that he did so was entirely because Thomas Stanley, under-treasurer of the mint and formal master of Richard, the elder, farmed him out from the start to Richard, the elder, for the quite specific purpose of his being taught the art of assaying. Thus, Richard Rogers, the elder, trained Richard, the younger, who in turn trained John Reynolds. Between the start of the first man’s career at the mint under Queen Elizabeth and the death of the third man in 1666 stretched a century of connected assaying skill, which was exercised and transmitted to the benefit of the Goldsmiths and mintmen alike.

The ending of Reynolds’s apprenticeship a year before his full term was up was followed by his appointment, first, to the mint, and then, in 1619 to the Goldsmiths’ Company as common assayer. From the start he adopted a clear business-like approach. To begin with he asked for a monopoly of sizing and justifying all troy weights which were brought to the Hall for testing. Since the performance of this function can be clearly linked with many of his predecessors, Reynolds’s request was hardly exceptional but was probably thought necessary to safeguard to his office from the outset a perquisite which as recently as June 1614 Charles Anthony, the mint engraver, had claimed was his by virtue of his own mint connection. Second, Reynolds requested a daily written statement from the weigher of the weight of the plate brought in and of the names of those who owned it. Third, he wanted an inventory of the assay house to be taken so that Mrs Dymock, the widow of his predecessor, might have what was hers and he be left with a clear understanding of what he himself was responsible for. And, finally, he looked for the repair of the assayer’s house. To all this the wardens agreed on 17 March 1620. Within a year Reynolds was petitioning for and only grudgingly given an extra £13 6s 8d to bring his fee back up to the £70 enjoyed by William Dymock; within two the Company was grumbling at the cost of repairs done to his house; and within three he was forbidden under pain of a 20s fine for each offence to make assays of gold for merchants and others who were not members of the Company.

On the heels of these irritants came the first real signs that Reynolds’s star was falling. In 1624–5 it was resolved, first, that it was wrong for any of the Company’s almsmen to be ‘employed in the assay house either for drawing or making assays’ and, second, that it was ‘very unsafe and inconvenient that the assayer of this Company should be party and judge in his own cause, namely, in the Trial of the Diet and sometimes making of uncertain assays for the brethren of this Company’. That Reynolds offended simply by having assistants in the assay house can hardly have been true because such men can be traced in almost continuous line from Richard Lee in the reign of Henry VIII to Hatton West who had served Reynolds’s immediate predecessor, Thomas Dymock. Nor can too much importance have attached to the fact of Reynolds’s assistants being the Company’s almsmen, for Thomas Tuttie had been made an almsman in 1560 with fifteen years of service still in him. What really mattered was Reynolds’s continuing personal absence from the assay house and the workmen’s growing distrust of him. On 22 December 1626, he sought to silence his critics by promising to mend his ways and agreeing that, if the Company was quite clear that he should no longer employ both his assistants, William Clarke and Richard Wotton, he would retain only the former whom he had sufficiently trained over the past six years to do the job properly. For its part the Company agreed to accept Clarke, during his good behaviour, while at the same time dismissing him from his almsman’s pension and making it plain to Reynolds that he must take an apprentice and teach him assaying. Allied as they were with the appointment earlier on, in May 1625, of a re-assayer, Alexander Jackson, to act as an independent check on what was

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6 GH.K, 307; L, 432–3.
7 GH.P, 162, 441.
8 GH.P, 486, 490, 494, 505, 554, 665, 689, 697.
9 GH.Q, 21, 31. On 15 October 1624 a workman accused of
fashioning coarse silver alleged that Wotton connived at this in return for a bribe of 3 s. GH.Q, 15.
10 GH.P, 411, 441; K, 112.
going on, these measures might have been thought sufficient to quieten things down on a permanent basis; but this was not to be, and on 24 July 1629 Jackson was chosen as Reynolds's replacement. Subsequently, Thomas Masters took the now vacant post of re-assayer.11

In these final years Reynolds found himself fighting on three fronts: against workmen who accused him of not discharging his job correctly; against a charge that he and the Company were attempting to enforce an illegal standard for silver; and against the wardens who wanted him out.

On 8 February 1627 a complaint was upheld against Reynolds's deputy, Clarke, that some of Edward Holles's spoons had been damaged during the assay and consequently it was ordered not only that Clarke should make recompense but also that in future he should only be employed in the preparation of the assays, which were to be carried out by the assayer himself. Any future misdemeanour was to bring immediate dismissal; in any case the previous order for the removal of Wotton and the training up of an apprentice in assaying were to be observed. None of this can Reynolds have liked but that the workmen in general were not yet either able or willing to mount a concerted attack on him is shown by the fact that when on the same day Reynolds asked the Court openly, through the upper warden, whether any had complaint against him or his staff no voices were raised.12

It was another two years before a composite indictment did emerge, but when it did, on 15 May 1629, Reynolds stood charged with, first, breaking his assayer's oath by showing partiality; second, allowing this partiality to influence his judgement of which plate to pass; third, causing the 'utter undoing of many men' either by actively breaking their plate or holding it back in question; fourth, neglecting his duty at the Hall by reason of his employment elsewhere; fifth, allowing his servant, contrary to the express wishes of the wardens, to oppress the workmen by unlawfully charging them and keeping back their silver; sixth, losing control in his rages to the extent that he had broken plate which formerly he had passed for good, writing thereon 'have a care' or 'take warning'; seventh, promising to revenge himself upon such as complained against him; and, lastly, using his royal office in the mint to give himself immunity against small and great alike - 'daring any man whom he hath wronged once to touch him, commanding the wardens in the king's name to do as he would have them'.13

This swingeing attack was certainly avouched as true and it is certainly possible not only that it was but that it did actually come spontaneously forward at that time, causing the wardens in the natural course of their duty to act upon it. But in reality the complainants were not big players in the game - Hugh Blackhurst for one, was an illiterate - and containing as it did in articles four and eight music which the wardens themselves might appropriately have played, the indictment does not ring entirely true, especially when one realises that it came at precisely the time when it was of most use to the wardens, the point in fact when they needed ostensible grounds for finally dismissing Reynolds.

In the summer of 1629 the Company had just got through a dreadful year; three of its number - Reynolds, Clarke and Edmund Rolfe, the touch warden for 1628-9 - had been sued at law; judgement had been given against them; and until the damages of £31 10s had been paid Clarke and Rolfe had been imprisoned. The successful plaintiff in all this was the spoonmaker who had brought Clarke to book in 1627, Edward Holles. On 25 June 1628 the wardens had broken as defective no less than nineteen dozen of Holles's spoons and subsequently he determined to overturn this judgement by proving, first, in the Exchequer that the king's indented trial piece was 11oz 2 dwt fine according to the law of the land and,
second, in the Mayor's Court that he had been wronged by the Company and its assayer because the spoons they had broken were indeed standard according to the trial piece. In both quests he was successful. Indeed, in the assays which were held before the aldermen appointed by the City the Company's wardens and others, on 5 and 7 February 1629, work by Thomas Francis and Benjamin Yates, also said to have been found defective, as well as that by Holles was tested against the trial plate and found to be good. When some of Holles's stuff was tested by the royal assayer in the mint, the result was exactly the same.14

While the humiliation in the eyes of the City which Holles's victory inflicted on the Company must indeed have been hard to bear it was in practice made even worse by the simultaneous realisation that, first, the Company had an assayer who was not prone to interpret a sterling standard in the same way as the Company wished, and, second, that the Company's interpretation of the standard had for many a year been erroneous. Before the verdict in the Holles case it was still possible to debate if the standard was 'to be in fineness intrinsic agreeable with the king's indented trial piece which was co-mixed of 11 oz 2 dwt of fine silver and 18 dwt of alloy authorised in the king's indenture for the Mint' or it was to be '11 oz 2 dwt by the assay extrinsic in sight according to an old [trial] piece remaining in Goldsmiths' Hall, which the Company upon some occasion made use of there for trial of the plate in doubt'.15 In other words, until this point the goldsmiths still had not made up their minds on how to define sterling: was it 11 oz 2 dwt at the co-mixture or 11 oz 2 dwt out of the fire? Given that it was commonly agreed that 2 dwt of silver is customarily 'hid from report' in a fire assay, 11 oz 2 dwt at the co-mixture comes out at 11 oz fine and to get 11 oz 2 dwt out at the assay one must start with 11 oz 4 dwt at the co-mixture. After the verdict in the Holles case the debate was over; just as half a century before Martin had defeated Keeling and caused it to be an established rule at the Mint that sterling was defined at the co-mixture rather than out of the fire, so Holles's victory over the Company caused the same definition to be applicable to the manufacture of silverwares. Salt was rubbed into the wardens' wounds by Reynolds's cheerful revelation that throughout his time as common assayer he had consistently worked 'to a lower standard that he had in charge from them to work unto' because, as a good mint man, he knew that '11 oz 2 dwt extrinsic at site' was wrong, 11 oz 2 dwt at the co-mixture was right. By defying the Company Reynolds had not only worked to the correct standard but in the process had prevented the Company from doing on a systematic basis what he himself was challenged over by a few, namely, testing and breaking plate which was in fact good.

Realising that using the mint's indented trial piece to test all future plate by would quickly exhaust that piece of the plate which the Company then had, the wardens made immediate provision for a new piece, conformable with the indented piece, to be used on a day-to-day basis. On 19 March 1629, before a jury representative of the workmen as well as of the officers of the Company, three finers - Messrs Owen, Gibbs and Wollaston - brought in four ingots of fine silver which Reynolds then tested, mixed with fine garbled copper, and twice melted. Being not entirely satisfied with the outcome when this silver was tested against the indented piece, Reynolds did a third melting the next day and then forged out his ingot. Again, he moved to a test against the indented piece, four assays in one fire, and four in a second. In the first, three of the four turned out exactly agreeable, with the fourth a shade under. In the second, all four agreed. The Company now had a new trial plate at the correct standard and all that was necessary for the re-establishment of peace and quiet was that everyone should accept it. To this end the wardens agreed that the new plate should be once again tested against the

14 GH.Q, 245-8.
15 Actual evidence is scarce of workmen being instructed to observe this standard, i.e. 11 oz 4 dwt at the co-mixture, but two clear examples are recorded in the Court Minutes for 1568. GH.K, 410, 414.
indented piece and once again before a representative jury. This time, however, the assayers were five in number – the three finers, Woollaston, Owen and Gibbs – and two workmen Frances and Williams. No doubt to everyone’s immense relief all five agreed that the trial plate was just.\textsuperscript{16}

Reynolds had done a good job, and since it was also the case, as we have already seen, that he had saved the Company serious embarrassment by ignoring its instructions and actually working to the correct standard, one would have thought for his initial mistake in assaying Holles’s spoons incorrectly or even a reward for his present service might have come his way.\textsuperscript{17} Instead, loomed the petition of 15 May mentioned above which gave the wardens justification sufficient to demand his head. That this is what they indeed went on to do bears the unmistakable mark of little men finding a scapegoat through whose dismissal something of their own tattered reputation might be restored. It was a move over which they certainly felt sensitive, as may be seen from their reaction in February 1630 to a letter from the almsman, William Dyos. His purpose in writing was to regain his pension by showing that far from his having egged-on Reynolds against the Company he had done his best to restrain him but when in the course of all this he hinted ‘somewhat obscurely of his knowledge of the secrets of the Company’ the wardens bridled with self justification. The clerk took care faithfully to record in the minutes that the Company had no need to fear anyone and pressed out of Dyos a suitable grovelling letter of submission.\textsuperscript{18}

Being the important man that he was Reynolds had no intention of submitting to the Company’s decision before every single ounce of his considerable influential muscle had been used in his own defence. He hung on to two puncheons in his possession – one for the date letter ‘I’ and one for the lion’s head, refused to give up the assay house, and went straight to the top with a petition to the king. For its part the Company petitioned the lord keeper and warned their trusties, the five workmen who had previously complained about Reynolds, to remember what they had said and to be ready to justify the same when called upon to do so. The judgement which the lord keeper and others of the Privy Council reached early in the new year betokened at once their inbred fear that unless authority were respected nothing could stand and their determination to ensure that a king’s officer should not be slenderly handled by a Company which itself hardly stood blameless. By condemning Reynolds for his earlier misdemeanours this compromise saved the Company’s face; by insisting that Reynolds either be reinstated, under sufficient sureties for his future good behaviour, or be bought off, it signalled beyond peradventure that no one touched Reynolds with impunity. Since to a man the wardens and assistants would not have Reynolds back he was offered up to £100 at the lords’ discretion; and when subsequently £24 was added to this, to cover overdue wages to Reynolds and payments to him for making gold assays and for joiners’ work in the assay house the settlement was complete. On 2 April 1630, Reynolds surrendered up the old puncheons, and on 18 June left the assay house.\textsuperscript{19}

The final aspect of John Reynolds’s career upon which I wish to touch tonight was ushered in by complaints early in 1631 against unsatisfactory weights for weighing gold coins. According to the complainants – shopkeepers, tradesmen, artisans and others of London – the weights, which were said to be made in London or imported from Holland, were very varied, and a principle cause of this (identified by a subsequent enquiry made on behalf of the lord petitioner, whose manner is in making the assays to draw every particular spoon and to mingle the drawing together whereas in the melting they may force it and so make the silver finer for the assay’. GH.Q, 227.

\textsuperscript{16} GH.Q, 249–51.
\textsuperscript{17} Reynolds himself never accepted that his assay result, 10 oz 19.5 dwt was inaccurate. On the contrary, in his defence he claimed that though Holies had indeed had portions of the spoons found good at the assays subsequently made by Simon Owen and the assayer at the mint, in these assays ‘the property of the spoons’ was altered in the melting; and ‘so tried contrary to the manner of the trials of spoons made by your

\textsuperscript{18} GH. Q, 303, 308.
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mayor of London) was that whereas some weights were made the exact counterpoise of a full-weight coin others were made lighter so that they weighed the official weight minus the remedy legally allowed by royal proclamation. To correct matters the lord mayor’s committee recommended that in future all weights should be at the full standard and that their manufacture should be engrossed into one maker’s hands. Subsequently, despite a claim by Sir William Parkhurst, warden of the mint, that the making of gold weights was a perquisite of his own office, Sir Thomas Aylesbury, from 1635 to 1643 a commissioner exercising with Sir Ralph Freeman the office of master-worker, was put in charge and it was he who used Thomas Burgh, or Birch, Nicholas Briot and John Reynolds to do the actual work. Burgh you may recall, I identified some time ago, as Aylesbury’s deputy, and with Briot the engraver of dies to strike coin, or Briot the pioneer of coinage machinery I am also familiar. But of Briot the engraver of coin-weight dies I knew nothing until reading Professor Bigg’s work on coin weights. Apparently, there were twelve dies in all and it was these that were used to strike up the weights which Reynolds boxed with a pair of scales preparatory to sale.

According to the proclamation of 20 December 1632 the new coin weights were to differ from the old by being circular in shape and each was to weigh the exact prescribed weight of the specified coin. Deviation from the prescribed weight was to be determined by sets of grains sold with the weights. On Reynolds’s own testimony he made and sold on Aylesbury’s behalf 24,000 sets and had by the time of his arrest and imprisonment in late June 1633 a further 3,000 sets of weights complete besides 4,380 sets of grains and 176,000 single weights already sized to a mite and ready to be stamped, and 6,500 sets of grains also ready for stamping. For the sets already sold he claimed not only that he had gained only £200 compared with Aylesbury’s £3,000 but that Aylesbury remained indebted to him in the sum of £800.

The production run of the not inconsiderable number of weights just mentioned seems to have lasted less than four months and that it was brought to an abrupt end was because Reynolds had broken into a sealed box of Aylesbury’s in the Tower and stolen a quantity of coin weights and, second, had rashly made weights contrary to the express order of Aylesbury, whereby his majesty’s subjects have been and will be much abused. Quite how many weights were taken the documents do not say, although it does seem clear that the nature of the alleged abuses consisted in his not having made sufficient numbers in time and not having made them accurately enough. Moreover, it seems beyond doubt that he had no effective defence and that in order to gain his liberty after seventeen weeks of confinement he had to promise to return all that he had taken and not to act in future without the express command of Aylesbury. Far from his claims that he was seriously out of pocket being believed, the Privy Council decided on the basis of careful investigation that it was in fact Sir Thomas Aylesbury who had suffered and that in consequence the remainder of the false weights remaining unsold should be melted down and a new proclamation issued to aid the selling of weights.

Ladies and gentlemen, I am conscious that Reynolds’s tables with which I began and his

20 Public Record Office, London (hereafter PRO). SP 16/188 nos 21, 21/1, 21/2; 169 nos 81, 81/1.
22 Challis, ‘Mint Officials and Moneyers of the Stuart Period’, p. 162.
25 PRO. SP 16/256 nos 39–42.
26 PRO. PC 2/43, pp. 175-6.
27 The Privy Council ordered his arrest on 26 June 1633 and on receiving his request to be set at liberty eight weeks later instructed the warden of the Fleet to act accordingly (23 August 1633). However, since in another, undated, plea Reynolds claimed that he had suffered seventeen weeks’ confinement it looks as if either the initial order for his release was cancelled or that following his release in August 1633 he subsequently offended again and was re-committed. PRO. SP 16/256 nos 42, 44, PC 2/43, p. 224.
28 PRO. PC 2/43, pp. 175–6, 181, 208–9, 276.
weights with which I now conclude are not commonly possessed by the numismatist; nor do I suppose that the goldsmiths' dilemma over what the sterling standard was and Reynolds's part in the resolution of that dilemma has hitherto been other than a neglected aspect of the history of fire assaying. Nevertheless, I hope I have convinced you tonight that the man and his career are indeed of considerable importance, for no numismatist should be unmindful of how mintmen went about their daily affairs, of how long it took to gain final agreement on what the sterling standard was, and how those who were wealthy enough to possess gold coin managed its use in every-day life.

At all events, as each night you tell out your early Stuart gold – the numismatic equivalent of counting sheep – or gaze on the silver coins of James I and Charles I poured forth in yet another find from the period of the Civil War, think of John Reynolds, sometime common assayer at Goldsmiths' Hall, and one of the best and most long serving assayers the Royal Mint has ever had.